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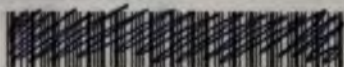
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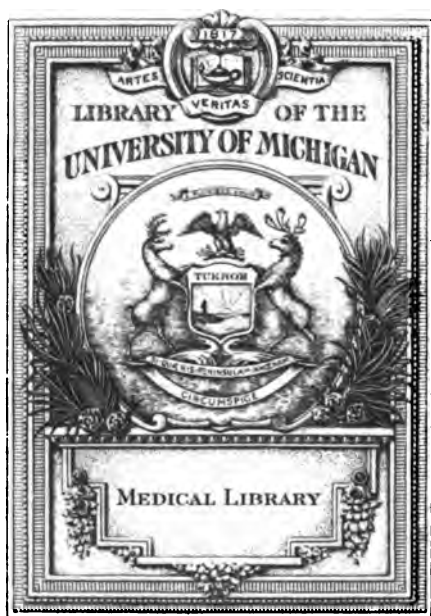
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NASHVILLE, TENNESSEE

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DEERING J. ROBERTS, M. D.

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NO. 1

Original Communications.

LOBAR PNEUMONIA IN CHILDREN.*

BY O. H. WILSON, M.D., OF NASHVILLE, TENN.

In selecting this broad subject the writer has no idea of covering the entire field, but simply to indicate the salient points in which the process differs from the ordinary adult form of the disease, and to try to explain them by the anatomic and physiologic conditions seen in childhood.

The child's thorax is smaller and more circular in cross section, the ratio of the diameters being three to two, compared to three to one of the adult. The child's ribs are nearer horizontal, the sternum merely a ridge of cartilage, the

*Read at Nashville Academy of Medicine, Tuesday Dec. 5th, 1911.

thoracic vertebræ less rigid, thus causing a lack of elasticity in the chest, so, while there are the same means of lifting the ribs—the resulting vacuum is not produced in a child, necessitating a different type of breathing, abdominal or diaphragmatic as the ordinary means of respiration. Thoracic respiration forming an unimportant part.

The lung tissue is quite different. At birth the air cells are rudimentary, simply small bulbous enlargements at the end of the bronchioles which subsequently grow and subdivide to form the well developed, predominating, vesicular element of the adult lung. The bronchioles and budding cells are surrounded by a loose connective tissue supporting a rich vascular plexus, which is displaced and compressed by subsequent development of air vesicles. The mucus membrane is but loosely adherent and rich in vessels and lymphatics.

The upper air passages also differ from the adult type. The nasal canals are comparatively smaller and are lined with a loosely connected, highly vascular, mucus membrane; easily swollen by slight inflammation so as to obstruct the passage. The Naso-pharynx is but a slit-like crevice, likely to be occluded by adenoid growths, hence the function of this part of the respiratory apparatus (warming and cleansing the inspired air), is easily lost, predisposing the lower structures to infections.

At birth respiration begins *de novo*. The respiratory center is poorly developed and easily disturbed. In the newborn, Cheyne-Stokes respiration is usual, and regular rhythm is not established before the end of the first year, and irregularity does not become of diagnostic importance until after the second year.

These anatomico-physiologic conditions explain the fact that the lung is the most frequent site of organic lesion in childhood, and show why we should expect certain radical differences in the behavior of adult and infantile lung under a pneumococcal infection.

Contrary to the older teaching, Lobar Pneumonia is quite

frequent in childhood. It may occur at any age. Under two years, about twenty-five per cent of lung infections are of this type, and after two years nearly all primary pneumonias are lobar, increasing in frequency up to six years, then decreasing to fifteen, then again increasing with each decade. As with adults it is a disease of cold and changeable weather, nearly all the cases being seen in late winter and early spring. It is a disease of the strong, robust child, while Broncho-pneumonia is usually seen in the debilitated.

In Lobar Pneumonia the pneumococcus of Fraenkel is the chief invader, though it may be mixed with staphylococcus or streptococcus, or, more frequently, the Influenza bacillus, especially during an epidemic.

Pneumococcus septicæmia is much rarer in children than in adults. The pathological lesions so produced are about the same and run a similar characteristic course as in adult cases; except that the apices are more frequently involved, and in childhood we often see the process in circumscribed spots rather than over entire lobes. The rarity of post-mortems of Lobar Pneumonia cases in childhood limits opportunities for pathologic study, but we find the same stages described in adult examinations: congestion, red and grey hepatization, and resolution. The stage of congestion may last from a few hours to several days, probably longer in childhood than in adults, thus we may not find the characteristic signs of complete solidification early. Pleurisy, usually to a decided extent, is almost a constant accompaniment. Lesions in other organs are due chiefly to pneumococcus infections, and may involve the Pericordium, Meninges, middle ear, joints, etc.

Symptoms:—At the onset, the *chill* may be absent or pass unnoticed, or there may be only cold extremities, so that the first sign of indisposition is sudden vomiting with a rapid rise of temperature. Pain may or may not be severe; as usual with children, it is but indefinitely located, frequently referred to the abdomen, the right iliac is a favorite region. There is a general sense of uneasiness, often

a tight, swollen, resisting abdomen, and usually there is constipation.

With this incomplete picture, especially if, as is seen so many times, there is a tardiness in the development of physical signs, it might seem excusable to refer the cause to the abdomen rather than to the thorax. Operation for appendicitis has been recorded in thus masked cases. Cough is indefinite and irregular, though sometimes distressing. Sputa is not seen in children under five years of age, thus depriving us of an important, characteristic and otherwise constant symptom.

The temperature continues high, higher than is usual with adults—there is a slight daily variation. The child always seems ill. There are no walking cases in childhood.

The pulse is rapid but strong, weakening slightly with the progress of the disease.

The most important symptom in obscure cases is the pulse-respiratory ratio, now, two to one or one and one-half to one, instead of three or four to one. There is possibly an expiratory moan, quite typical.

The patient usually improves slightly about the third day, but pulse, respiration and temperature continue until the termination, which is by crisis in little more than half the cases, otherwise by lysis. The younger the child the more frequently we see lysis. The average crisis is earlier than in adults, the fifth day is not unusual and nearly always by the eighth.

We should mention the cerebral type. As in many other infections, the initial chill is often replaced by a convulsion. Delirium, which to some extent is seen in nearly all cases, may be extreme; stupor, irresponsive pupils, opisthotonus, irregular pulse, retracted abdomen, all due to toxemia, may so mask the picture that a lumbar puncture may be required to exclude Meningitis. The real pathology may not be suspected until the crisis, which is followed by a rapid improvement in nervous conditions. The cerebral type is more

common in childhood. Initial convulsions simply heralding the infection are not significant, but if repeated later are indicative of severe toxemia.

Physical Signs:—During the stage of congestion, which may last several hours, or several days, there may be little to call attention to the thorax. Rales may not be present, or at least but to a slight extent. There is in childhood, a normal tendency to a bronchial type of breathing. Upon close observation we should, however, be able to find diminished respiration in the affected part with compensatory exaggeration elsewhere. Crepitant or subcrepitant rales are irregular and evanescent, especially in childhood, and likely to be confounded with a friction rub. Bronchial breathing and dullness are not established until the second stage consolidation; which is sometimes late in appearing. It may be even the sixth or seventh day before we are able to confirm our diagnosis by the classical findings, though they usually come out by the third day.

The late appearance of physical signs is usually explained by the assumption of a central pneumonia coming to the surface, or, in some cases where the signs are never seen we are tempted to plainly call it central pneumonia. Holt doubts the entity of central pneumonia. With an extended post mortem experience, he says he has frequently seen a superficial pneumonia, but never a central lesion. His idea is that the process in these obscure cases is probably located near the vertebral column, under the shoulder, or near the diaphragm, and is undiscoverable. To him the assumption of a pneumococcic infection *without a lung lesion*, but with characteristic toxic symptoms, is more reasonable than central pneumonia. Be this as it may, we find in childhood many confusing, atypical cases, some of which are simply quite tardy, others going on to a crisis without the ordinary findings.

Complications:—A post critical rise of temperature, if at all persistent, indicates the occurrence of a re-infection of a fresh area of lung tissue, or the advent of Empyema,

the most frequent complication of pneumonia. Meningitis is also frequent, occurring usually late in the course of the disease. Pericarditis, usually due to extension through the pleura, is sometimes seen.

Diagnosis:—This is easy except in slowly developing cases. Every patient with continued high temperature, delirium, ruddy cheek or cheeks, Herpes, dilating *alæ nasi*, a leucocytosis, an abnormal pulse-respiratory ratio should be carefully gone over daily, or oftener; searching for a lung lesion, regardless of the prominence of abdominal or meningeal symptoms.

Prognosis:—As children usually have dependable hearts the prognosis is good. The mortality is 4 per cent, and most of the fatal cases are seen in children under two years of age. Late convulsions, evidencing severe toxemia, are serious. Cyanosis is unfavorable. The height of temperature is not a guide, but temperature after the tenth day is usually indicative of a serious complication or severe toxemia. Gastro-intestinal disturbance, especially with tympanitis, is distressing.

Treatment:—The disease is self limited. We know of no abortive treatment. Sera and vaccines have given no results. We are then forced to stand by and treat symptoms as they arise.

By far the most important point in the treatment is fresh air, and plenty of it. I am not yet prepared to accept the dictum that the colder and swifter the air the better; I may come to it later. A sunny room with open windows, though at a temperature of 68 or 70, with only one or two people in the room, suits me now. Next in importance is the proper diet. An overdistended stomach interferes with the diaphragm, the chief factor in infantile respiration; so take care of the stomach from the very beginning. Absolute liquid diet is necessary but plenty of it, preferably in small quantities, but at slightly more frequent intervals.

Aside from these general rules there are four condi-

tions to be met, which may require symptomatic treatment, but be careful that the digestion is not disturbed by medication.

1. Cardiac weakness fortunately rare in childhood, but may be seen late, especially about the crisis. Brandy, aromatic ammonia or strychnine, the latter hypodermatically, are most reliable, and, to be of service must be used as soon as the pulse begins to fail, but are not needed in every case, or even in the majority. Inhalation of oxygen may be good, especially when there is a cyanotic tendency.

2. Hyperpyrexia needs controlling, chiefly for its effect on the nervous system; and for this purpose baths, preferably warm baths, are most servicable. If the patient is sthenic and the baths disturb, even a small amount of phenacetine may be used, though very guardedly.

3. Pain often requires relief, and an opiate is the best. Dover's powder, paregoric, or a morphia hypodermic. Ice-bags applied at regular intervals relieve pain. Aside from this, topical applications are worthless, and possibly even harmful.

4. *Toxemia*. We have as yet no direct means of controlling toxemia, though we may modify it by using proper nourishment, giving as much water as possible, and the moderate use of saline laxatives.

TREATMENT OF FRACTURE OF THE PATELLA.*

BY PAUL DE WITT, M. D., OF NASHVILLE, TENN.

Joint fractures are always distressing in their after-effects. This is especially true of the elbow and knee. The tendon of the quadriceps, is especially liable to injury from muscular contraction, which also diminishes its chances for recovery. It lies in a dense fibrous sheath coming from the tendon, and the fascia lata. The quadriceps tendon is

*Read before the Middle Tennessee Medical Association.

inserted into its upper border, the patella tendon into its apex, and the vasti into its sides. The fascia lata forms the fibrous sheath of these tendons, being intimately associated with them and, is attached to the surrounding bony prominences. The synovial membrane of the knee-joint lies directly beneath and is attached to the patella, extending two fingers breadth above the upper border, but is reflected some distance from the lower border. This accounts for the fact that in fractures of the lower portion, the knee-joint is not opened. When the leg is extended, the lower margin of the patella is on a line with the articulation of the knee.

When fracture occurs, there is a stretching and tearing, not only of the fibro-periosteal sheath, but of the lateral expansions as well, and the joint is frequently opened. Separation of the fragments is produced by rupture of the lateral aponeurosis, contraction of the quadriceps, and accumulation of effusion. This separation allows the lacerated sheath to curl and fall between the fragments, preventing bony apposition.

The first indication to be met is limitation of effusion, which frequently becomes very great in a few hours. If seen early, effusion can be effectively controlled by a simple elastic bandage and ice-caps. It must be removed before bony apposition can be secured.

Effusion being sufficiently limited in four to seven days, the next consideration is reduction and repair, which are accomplished either by the expectant or operative plan.

The expectant plan embodies reduction, splints, and strapping. A posterior splint, made from a plaster-of-Paris bandage, is applied from the gluteal fold to the heel. The lower fragment is pulled upward and held by an adhesive strap, encircling the knee, and fastened to the splint above the line of fracture. The upper fragment is pulled downward and held by an adhesive strip, passing obliquely around the fragment, and fastened to the splint

below the fracture. To relieve tension the leg is elevated and the quadriceps muscle is held downward by splints held by adhesive strips encircling the thigh and fastened to the posterior splint. Lateral splints, well padded, are now applied to the whole length of the limb.

Daily massage is important to prevent adhesions, and passive motion is employed after four weeks. After six to eight weeks walking with crutches may be allowed, and in ten weeks active motion may be indulged in very guardedly. In six months splints may be discarded and a flannel bandage worn for several months longer.

The expectant plan offers little or no hope of bony union. Ligamentous union results, frequently with wide separation of the fragments, and leaving a fairly serviceable though weakened knee. The method suggested should be employed in all cases where facilities for the open operation are not absolutely perfect as regards asepsis.

Where asepsis can be obtained, in my humble opinion, the open operation is preferable, because in no other way can bony union be accomplished, the time of convalescence is much shortened, and the resulting knee much stronger. The great danger is infection, which, if it occurs, brings very ugly complications. However, with our present knowledge of cleanliness, the careful surgeon need not hesitate.

The superficial situation of the patella renders its approach very simple, and the pathology of the fracture draws us more and more to radical measures.

Effusion and active oozing from the fractured surfaces of bone continues several days, hence operation cannot be undertaken until they have ceased. The limb must receive especial care in preparation. The operator and assistant must sterilize with the utmost care and rubber gloves be worn by all. At no time of the proceedings should a finger be allowed to touch the wound, all handling being done with forceps and sponges held by clamps.

The incision, either vertical or transversal, must thoroughly expose the fracture. A transverse incision below the knee appeals to me as giving better exposure. The clots are removed by a stream of warm saline solution, thrown from an irrigator, assisted by gentle sponging, the fractured surfaces being thoroughly cleaned. The torn capsule will be found overlapping the fragments. It is raised with forceps and cut away or, if strong enough, preserved for suture. All loose fragments of bone are removed. Interrupted cat-gut sutures are now placed in the lateral aponeuroses and the fibro-periosteal sheath of the patella, bringing the fractured surfaces in direct apposition. The skin incision is closed with Michell's skin clips, without drainage. A copious sterile dressing and a long posterior splint are applied, and the limb elevated.

Only absorbable suture material should be used, and I believe number one, twenty-day chromic gut to be the suture "par excellence." Silver wire and linen are superfluous, as the final result depends, not upon the suturing, but upon bony union. The absorbable material holds the fragments till union occurs and it then disappears, leaving the wound free from a mechanical irritant.

General anesthesia may be employed for the operation, though it is very easily accomplished with local anesthesia. Whenever a patient has to be confined to his back any procedure which minimizes the danger of pneumonia is a blessing. The patella being superficial, this method is very simple.

The line of incision is inflated with a one-fifth of one per cent solution of cocain and the structures opened to the fracture. Clots are removed by irrigation. A few drops of the solution are injected into the torn capsule, which is trimmed. To overcome separation of the fragments, the leg is elevated on an inverted chair. This brings the lower fragment up and relaxes the quadriceps. An assistant makes gentle pressure downward upon the upper fragment and the sutures are placed.

“infallibility is a word not found in the therapeutic lexicon

Reliability, however, is a word often looked for and exceedingly necessary in drug therapy. To any remedy whose reputation is based upon reliability, no concern need be given to its infallibility.

Reliability is achieved by compounding a scientific product carefully and uniformly. Antiphlogistine is such a remedy. For Years it has given the most satisfactory results in all inflammatory diseases where applied thick and hot and well protected.

Its heat retentive qualities, moisture and hygroscopic action have made it the most reliable of any thermic application for the reduction of inflammation.

For inflammatory throat and chest conditions, rheumatic joints, etc., a thick and hot antiphlogistine dressing will give the doctor and patient the hoped for relief.”

THE SOUTHERN PRACTITIONER

AN INDEPENDENT MONTHLY JOURNAL
DEVOTED TO MEDICINE AND SURGERY

ESTABLISHED 1879

THE OFFICIAL ORGAN OF THE ASSOCIATION OF MEDICAL
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To hard-worked medical men, with a limited time for reading, and few opportunities for professional conversation, such a journal as this, bringing every month the latest ideas in medical practice and the latest records of important cases, ought to be invaluable. As a medical periodical that is within the reach of every professional reader, we respectfully submit it to your consideration.

Correspondence and Reports of Cases are requested from all regular Practitioners and Medical Organizations.

DEERING J. ROBERTS, M. D.,
Editor and Proprietor.

420 1-2 Union Street

NASHVILLE, TENN.

Compound fracture is treated by thorough irrigation of the joint with mild bichloride solution, followed by saline, removal of loose fragments, and closure, with or without drainage, according to the exigencies of the case.

Summary:—

1. With the expectant plan of treatment, ligamentous union is all that can be expected, though a fairly serviceable knee results.

2. Suture of the capsule and aponeurosis is the ideal treatment, if aseptic surroundings can be obtained.

3. Absorbable suture material is to be used, and local anesthesia is preferable.

THE TREATMENT OF GONORRHEA.

BY W. T. MARRS, M.D. OF PEORIA HEIGHTS, ILL.

Not until recent years has this disease had the painstaking consideration which its importance demands. Too often the sufferers themselves have been disposed to regard their infections as a rather inconsequential matter and one of transitory duration. Physicians, too, have often been careless or indifferent in pointing out to the sufferer the probable far-reaching complications and sequelæ that may result from a comparatively benign attack of gonorrhea.

Perhaps about one-half the male population who acquire the disease rely at first on self-medication or the prescription of a friend or some sort of "sure shot" remedy advertised in privies and the other haunts of men. They still perhaps pay their respects to Venus and Bacchus and all the other questionable gods, work or exercise unduly, and pay little attention to diet and hygiene, until the disease has reached a stage of stubborn chronicity. A large contingent of the cases that come to us have been the rounds and have had quite a bit of haphazard treatment by both lay and professional hands.

Most of these cases will be cured in a reasonable length of time, provided we gain their confidence and see that they carry out our instructions not only with regard to medication but their whole manner of living. The various phases of the disease should be taken up with the patient and everything made plain to him. The physician should feel it his bounden duty to impress upon the sufferer's mind the fact that a neglected or uncured gonorrhea is likely to eventuate sooner or later into a posterior urethritis, pyelitis, or an impaired nervous system with subsequent broken health. Furthermore he should be made to realize that he is a menace to those with whom he may carelessly associate and that carelessness on his part—say in the use of towels or other toilet articles—may be the means of conveying a blighting ophthalmia upon some innocent person. Gynecologists have told us that 80 per cent of the operable cases in women are brought to that unfortunate state because of the extension of a so-called latent gonorrheal infection. In many cases the disease is thrust upon an innocent and unsuspecting wife by her recreant spouse who may have thought he was cured.

In treating gonorrhea the idea of prophylaxis should, therefore, be made paramount and the dangers to the sufferer himself and others should be clearly set before him. The acute stage is often accompanied by a febrile reaction and demands the same treatment as any other acute disease. The patient should go to bed; above all he should not work or exercise vigorously. A sitz bath is desirable in the incipency of the attack. If there is fever or a rapid pulse aconite is indicated. It is important that the bowels be cleared out with calomel and salines. The patient should drink water freely, preferably distilled water. Mucilaginous drinks have a measure of value, as slippery elm or flaxseed. The penis should be soaked frequently in a hot boracic acid solution. The diet in the

acute stage should consist mainly of milk, toast and soft cooked eggs.

If the disease progresses unchecked the gonococci burrow in the submucous tissues and may in time affect the seminal vesicles, epididymis, bladder or pelvis of the kidneys. As the acute symptoms subside injections are indicated; there is no other way only by direct application of routing out the gonococci that have taken up their abode in the submucous tissues. Strong corrosive agencies should not be employed, owing to their danger in causing stricture. An injection fluid which devitalizes normal cells may wreak mischief. The ordinary astringents have very little curative effect. They may temporarily limit the discharge—hold it back, as it were, and this may create the idea that improvement is rapidly taking place.

The silver solution when employed in a mitigated, non-irritating form is our most serviceable agency in inhibiting microbic activity and thus promoting a cure. Syrgol is one of the newer methods of using silver. This preparation is a colloidal substance in the form of an oxalbuminate of silver and is presented in dark crystals which readily form a soluble solution. It is quite stable in solution and does not undergo decomposition or change. Syrgol solution has a most inhibitory action upon the gonococcus and is therefore a curable remedy if rightly used. In a number of stubborn cases in which I have employed it I have found the discharge to cease in a few days, not to return.

Syrgol is not irritating and its use is not attended by either danger or discomfort. The usual strength in which it is employed as an injection is in 2 to 1000 of water, although double this strength may be used with impunity. As the sensitiveness of the urethra varies so much in different individuals it is always well to begin using injection fluids in their minimum strength and gradual increase. If this remedy is used as soon as injections are

indicated complications are not likely to arise and the recovery in most cases is uneventful. The patient must live virtuously and temperately and carry out the treatment with diligence until the cure is thoroughly established.

CHRONIC LEUKORRHEA.

DR. C. E. BRANDENBURG, NEW YORK CITY

Fifteen months ago Mrs. X. came to me for treatment, giving the following history: Six years previous she had a miscarriage, since which she had been troubled with a profuse leukorrhea of a very foul odor. At her menstrual period she suffered greatly and flowed excessively. On examination the cervix was found to be nearly four times its normal size and so badly eroded as to have every appearance of a cancer and had been mistaken for such by one physician. The uterus was soft and boggy and very much enlarged. She had been to the hospital on two occasions and each time had been curetted, but this seemed only to aggravate the general condition. For over a year I treated her with every means at hand but to no purpose. I was making preparation for an operation, which would have meant the removal of the uterus, when my attention was drawn to Glyco-Thymoline and I determined to give it a thorough trial before operative measures were to be further introduced. An intrauterine douche of Glyco-Thymoline in a 25% hot solution was administered and lamb's wool tampons saturated with pure Glyco-Thymoline were used. She began to improve from the first application. The leukorrhea became less and the odor disappeared entirely. The cervix took on a healthy look. The uterus decreased in size and became firm; in fact she is now nearly well after nine weeks' treatment with Glyco-Thymoline.

PRUNOIDS are an ideal purgative without cathartic iniquities; a real advance in the therapy of intestinal constipation.

CLINICAL SOCIETY OF NEW YORK POLYCLINIC
MEDICAL SCHOOL AND HOSPITAL.

MEETING NOVEMBER 6TH, 1911.

Dr. Packard presented a case of Caisson Disease simulating Locomotor Ataxia.

The patient a man 55 years of age, came complaining of chronic rheumatism; His History was unique—Was perfectly well until 10 years ago, when he began to work in the tunnel. This resulted in an attack of Caisson Disease, with lightning pains in the right leg and thigh. There were no other symptoms and after recovery he returned to the Caisson and continued to work until a month ago. During his work in the tunnel he had four or five attacks.

Examination showed him to be suffering from a peculiar type of Caisson disease, which resembled Locomotor Ataxia. The symptoms were Argyle-Robinson pupil, Romberg's sign, lightning pains in right leg, some pain in left, and an osteo-arthritis of the knee.

The question arose as to whether he was suffering from Syphilis or Caisson Disease? Wasserman and Noguchi Tests were negative as were injection tests of the spirochæta pallida. He denied all history of Syphilis:—

Dr. Beal said that in his opinion, not all cases of Locomotor Ataxia were due to Syphilis. This case had reacted negatively to Wassermann, Noguchi, and to the spirochæta pallida test. From the examination it looked like Tabes.

Dr Gilday thought that 60 per cent was low for specific tabes cases; His own experience had shown a larger percentage. In regard to the value of the Wasserman or Noguchi reaction, preceding or in the stage of Tabes, he had had negative reaction despite a positive history of Syphilis. He felt that in post-syphilitic cases, these reactions were not reliable.

Dr. Gilday inquired whether in post-syphilitic cases, the spirochæta pallida had produced a degeneration in the

spinal chord, and if so, would the dead spirochætæ give a reaction?

Dr. Packard replied that the Spirochætæ were not dead but domrant, and this condition was what made the injection of "606" effective.

Dr. Sinclair asked if the patient had been drinking any alcohol before the tests were made, as it is well known that if a man drinks a glass or two of whiskey before the Wasserman or Noguchi tests were made, as it is well known give negative results. Even one glass of whiskey will effect the test.

CASE FOR DIFFERENTIAL DIAGNOSIS, BETWEEN CIRRHOSIS OF THE LIVER AND CARCINOMIA.

Dr. Beal presented this case for diagnosis, because he wished to differentiate between enlargement of the Spleen, in Cirrhosis, and absence of enlargement of the spleen in Carcinoma.

In this opinion with Cirrhosis of the Liver, there is always enlargement of the Spleen, and with Carcinoma never enlargement of the spleen.

The patient shown was perfectly well up to May, last, when he commenced to fail. In June he fell sick, and since then has lost half his weight. He has been ascitic, and been tapped once, and sixty to seventy ounces of fluid removed. The spleen did not seem particularly enlarged, but just before the pylorus, was a hard carcinomatous mass. The man had the carcinoma symptoms, but no pain.

Dr. Packard asked if there would not be bloody fluid in carcinoma? *Dr. Beal* replied that bloody fluid was not necessarily present. *Dr. Packard* said that in cirrhosis of the Liver, blood tinged fluid was rare, unless it was due to the rupture of some small vessel made by the surgeon in entering the abdomen, and so causing a return flow which was blood tinged. In all cases of cirrhosis of the liver, there is enlargement of the spleen, because the portal circulation is obstructed. This case might be caused by a

cirrhosis of the liver or carcinoma of the liver. It seemed to him, since there was portal obstruction, cirrhosis might have large spleen. He believed that Carcinoma did have an enlarged spleen.

Dr. Strauss thought that care should be exercised in eliminating other diseases of the Liver, which might stimulate Carcinoma and Cirrhosis, in the case observed. Enlarged liver with nodules, has shown tubercular abscess on operation.

Dr. Gilday suggested that an exploratory incision might have solved that diagnosis, and it would do no more injury than tapping.

Dr. Tovey asked if *Dr. Beal* had made a rectal examination, as the Mayo's have found metastasis of the rectum in carcinoma of the liver.

Dr. Reich said that malignancy was usually found with bloody fluid.

Dr. Beal said that in his experience the fluid in cirrhosis was of the same character as that in malignancy. He said he was glad that most of those present found no enlargement of the Spleen, as he wished to bring out its normal size in Carcinoma.

TWO CASES SHOWING RESULTS OF WHITEHEAD OPERATION FOR HEMORRHOIDS.

Presented by *Dr. Dryfus*.

The first patient came complaining of severe itching and some granulation, at the rectum. He had been operated on during the summer by a modification of the Ball operation, but was still complaining of several points of itching. He was in bed for a week or so, with loss of control, which subsequently had been restored.

The other case was operated upon in England six months ago, by the regular Whitehead method. This patient came under observation complaining of itching, discharge, pain with slight blood in the stools. Examination showed what looked like ulcer, but proved to be mucous membrane: Too

much having been cut off, it had not healed, and the man was continually irritated. The Ball modification of the Whitehead was very successful. Many of the supposed strictures of the rectum were due, after a regular Whitehead operation to the sloughing of the mucous membrane. In a primary union this symptom is obviated.

Dr. Lynch said that these two cases had been shown because the one operated upon by the Whitehead method, had been told that nothing could be done for him, while as a matter of fact, he was completely relieved by a simple plastic operation.

MEETING DECEMBER 5, 1911

CASE OF TUBERCULAR IRITIS

Presented by Dr. E. S. Thomson.

The patient was an Italian, 21 years of age, two years in the country. He has three brothers living and well and one sister who died at the age of seven. No family history of tuberculosis. He reacted positively to the Von Pirquet test, but otherwise shows no evidence of tuberculosis.

Eye Symptoms:—Besides the usual adhesions of the lense, he shows a well-marked grayish nodule, projecting from the periphery of the iris, which is rather characteristic. The three growths on the iris, which it is most important to distinguish are sarcoma, so-called gumma and tubercular.

Sarcoma is usually a dark distinct mark, which is characteristic; gumma is usually on the margin, and is associated with a good deal of inflammation, but clears up very rapidly under mercury. Tubercle most frequently occurs at the limbus: In this case one can see a cheesy mass, extending from the limbus to the adjacent structures. With the Von Pirquet reaction and the clinical appearance, it seems a fair clinical conclusion that it is tubercle of the iris.

These cases are generally secondary to some process of the lung, and the primary cases that have been reported are open to question. The prognosis in this case appears favor-

able and the patient will probably recover if properly treated.

In response to a query as to what treatment would be effective, *Dr. Thomson* said he had been impressed with the value of Tuberculin, and would start that treatment immediately. He would take the precaution, however, of having a Wasserman test made. Surgical treatment was not indicated.

Dr. Lynch said he supposed that the same principles would hold good in this case as in other types of T. B., viz.: Good hygienic surroundings and good food.

REPORT OF A CASE OF CANCER OF THE STOMACH

Presented by *Dr. Kellog*, who had operated upon this case several days before, and although the patient was doing well in the ward, regretted that he could not show it.

The man was about 50 years of age. About three years ago, after business anxiety, he complained of pain in the stomach, during the earliest stages of digestion, and attacks of vomiting. Later the time of the pain changed: He was weakened with pain in the night. After a time these symptoms disappeared.

Two months ago there was a recurrence of symptoms. He had some tenderness and pain, located in the gall bladder region: The pain occurred before he had entered the hospital, coming on four to four and a half hours after food. The vomitus was dark in color, and foul smelling. He had no night pain during this attack. After reaching the hospital the night pain came on and suggested duodenal location. Examination of stomach showed excessive Hcl., faint trace of lactic acid, and a few Boas bacilli.

The X-ray showed an interruption of the peristaltic wave at one point. Physical examination of the stomach showed no enlargement, and no tumor could be felt. From an examination of the stomach contents, and the X-ray findings, an exploratory incision was suggested. Operation disclosed a mass on the posterior portion of the stomach.

The interesting features of the case were the total absence of physical signs and the establishment of the diagnosis by the X-ray findings. A gastro-enterostomy was performed successfully.

Dr. Lynch enquired what preparation of bismuth was used?

Dr. Kellog said the pictures were taken by *Dr. Busby*, who uses a preparation of bismuth in buttermilk. He did not know whether subnitrate or subcarbonate was used.

Dr. Grant said he expected from the history of the case to find duodenal ulcer, the pain which came so long after eating being suggestive. Examination of gastric contents he has not found of much value in cases of duodenal ulcer. The delayed period of pain, is however, of importance. It is claimed that increase of Hcl. is a characteristic of the condition: In several of his cases there was no increase, while in others there was decided diminution in Hcl.

Dr. Wightman said that simple ulcers of the stomach required care in the diagnosis, and subsequent treatment as malignant conditions, frequently became engrafted upon simple ulcers, and were prone to run a very acute course.

Dr. Yeomans emphasized the value of X-ray pictures in carcinoma, as they were extremely helpful in locating the site of the tumor. It facilitated the lesion on the operating table, when time was valuable.

Dr. Edgerton said that the X-ray might be misleading, as in a case he had recently observed with *Drs. Hays, Nisbet* and *Foot*. The X-ray plates showed interference with the peristaltic wave at the lower end of the greater curvature of the stomach, but operation proved a Meckel's diverticulum in the ileum near the cecum.

Dr. Lynch said that he did not think any particular method should be depended upon entirely, but that all should be taken together, not omitting the X-ray or gastric content examination. It had been observed that subnitrate in quantity may have poisonous effect; for that reason Kirks and others have adopted the chloride of bismuth, which is harm-

less and suspends very easily in milk. He gives two ounces of chloride of bismuth suspended in kumyss at night, the bowels having been emptied by an enema, and the next morning two ounces more, and thus combined, the X-ray picture gives both stomach and colon. This may be done every three or four days for four or five pictures preceding operation until the desired picture is secured.

Obituary.

At the regular meeting of the *Nashville Academy of Medicine*, held in its hall, Tuesday, Dec. 19th, 1911, the Secretary announced the death of Dr. W. A. Atchison, occurring on the preceding morning. Eulogistic remarks were made by Drs. Geo. H. Price, Deering J. Roberts, C. C. Sullivan and Jno. A. Witherspoon, the latter concluding by offering a resolution, which was adopted that Drs. Roberts, Price and the Secretary, Dr. Dixon, be appointed a committee to offer a suitable memorial to be presented at the next meeting of the Academy.

In accordance therewith the following was submitted and adopted:

WILLIAM A. ATCHISON, M. D., was born in Warren County, Ky., Aug. 17, 1831, and after a long and useful life, laid down its burdens and its cares Dec. 18, 1911. Receiving a comparatively good education in the schools of his native county, he received his degree of Doctor of Medicine in the Medical Department of the University of Louisville, in 1853. Practicing his profession most successfully for some years in the vicinity of his boyhood home, he came to Nashville in 1876, and for thirtyfive years has done his duty to his people as a Doctor of Medicine, a citizen of the capital city of Tennessee, as a devoted husband, a fond and loving father, and as a brother of his fellow-man.

Ripe in years, rich in experience, he leaves a host of

friends here and in his native State to regret that there were not more men of his stamp and texture. Kindly, genial and courteous as a physician and a man, his great characteristic was his innate modesty—his code of ethics was “do unto others as you would be done by them;” modest of his attainments, he was unostentatious in manner and unassuming in professional demeanor, well satisfied to discharge faithfully and well, punctually and with exactness every personal and professional obligation, he achieved a well earned reputation for complete reliability which commanded and received the respect and confidence of his colleagues and the community in which he lived.

A generation of doctors has come and passed over the threshold of life since he entered on professional duty, but living or dead, not a single one of his colleagues, past and present could say of him ought but good. Careful of his own reputation, he had never a hard word or thought as to his professional associates, he being true to himself, to his manhood and his God, had a like belief in his fellows. Unhesitatingly we can say of him, that all who came within the confines of his acquaintanceship were bettered thereby. His only son preceded him to the great beyond more than two decades ago, and the year of his death was marked as the final years of his beloved wife and daughter. In the last few months of his life he was lonesome, aye, lonesome indeed; therefore he sought companionship in the Nashville Academy of Medicine, which organization honored itself in making him an honorary member. As a President and member of this Academy, he was ever thoughtful of its welfare, and while he can be no more with us in person, God grant that his impress may ever remain.

AGRIPPA NELSON BELL, A.M., M.D., was a native of Northampton County, Virginia, where he was born August 3, 1820, and died in Brooklyn, N. Y., October 15, 1911.

His early education was received in the public schools, and he attended medical lectures at the Harvard Medical

School in 1840-41, and the Jefferson Medical College, receiving the degree of M.D. in 1842. Trinity College conferred the degree of A.M. upon him in 1860.

Dr. Bell was Assistant Surgeon in the United States Navy from 1844-48. For a short time he was in practice in Waterbury, Conn. In 1855 he came to Brooklyn.

His professional life was devoted to preventive medicine and in this particular he performed valuable service to the country. He was the founder of the *Sanitarian* in 1873, and its editor until the time of his death. A member of the National Quarantine Convention in 1857-60, Commissioner from 1870-75, and an Inspector of Quarantine for the National Board of Health, President of the American Congress of Tuberculosis in 1901-02, and Honorary President of the International Congress of Tuberculosis in 1903-04, a member of the Medical Society, County of Kings, from 1858, honorary member 1898. American Medical Association, American Public Health and Climatological Association, New York Academy of Medicine.

DR. EUGENE WASDIN, a prominent physician of Georgetown, S. C., died on November 17th in Gladwine, Pa., where he was undergoing treatment.

Dr. Wasdin was born in Georgetown September 28, 1859. He graduated from the Charleston Medical College in March, 1882, as first honor man and entered the United State Public Health and Marine Hospital Service in 1883. At the time of his death he held the rank of a full surgeon in the service. He was stationed at Buffalo, N. Y., at the time of the assassination of President William McKinley, and was one of the surgeons who operated on President McKinley and attended him during his illness.

He did exhaustive scientific work in yellow fever, for which he was decorated by the King of Italy. He was always in the field in all yellow fever epidemics, and was a recognized authority in the diagnosis of that disease. He

contracted yellow fever during work in a yellow fever epidemic in Mississippi upon its last visitation, but recovered and resumed duty in the same epidemic.

Editorial.

"THE PROPAGANDA FOR REFORM"—IS IT A JOKE?

In the *Journal of the American Medical Association*, Vol. LVII., Number 25, (Dec. 16, 1911), page 2013, some one of its "penny-a-liners," presumably one of the sweet bunch designated as "the Council on Pharmacy and Chemistry," essays a very violent attack on the *American Journal of Surgery*, stating that "page after page is given over to the exploitation of the worst kind of nostrums," specifically mentioning thirty-nine reliable and well-established "proprietary" preparations, many of which are recognized by the majority of the medical profession as aids in their work, and which are in daily use by members of the profession of equal ability, honesty and ethical standing as any of the members of the Council on Pharmacy and Chemistry, and whose character we will not degrade by comparing them with the irregular advertising quack who surreptitiously obtained his degree as a regular doctor of medicine by claiming attendance on a medical school in Chicago while residing and practicing medicine in a city 200 miles away, and who yet controls the destinies of the *Jour. of the A. M. A.*, and is the chairman of the Council on Pharmacy and Chemistry.

We do not think it necessary to defend the *American Journal of Surgery*, if any defense is needed, it is a matter for the editor of that journal; but we do not hesitate to denounce the statements made in the article cited in reference to the preparations advertised in the *American Journal of Surgery* as both false and libelous. The slurring reference to the contributors of the *American Journal of Surgery* is or should be something more than a "joke" to "men who hold or have held high offices in the American Medical Association, Presidents, vice-presidents, chairman, secretaries and members of sections of the association"—nor is it a "wonder" that they "look on the propaganda for reform in proprietary medicines, instituted by the American Medical Association, as a joke."

Suppose we take a slightly analytical look into this matter. In the United States there are about 140,000 practicing physicians; less than 25 per cent of these are members of the A. M. A.; three-fourths of

whom, we do hesitate to say, without the slightest fear of successful contradiction, are using year in and year out, successfully and satisfactorily, some one or more of the preparations specifically indicated in this article as some of "the worst kind of nostrums," many of which are designated as "frauds." The Board of Trustees of the *Jour. of the A. M. A.* had better put a muzzle on this asinine pencil-pusher, or they will find themselves and the *J. A. M. A.* involved, as good old Judge Joe Guild of this State was wont to say, "in the tedious and wearisome meanderings of a lawsuit," that will be anything but a "joke."

In this one article alone, to say nothing of others of like character that have appeared in preceding issues of the *J. A. M. A.*, the defendant in a libel suit could not satisfactorily sustain a plea of "privileged communication;" and as for "*justification*," the statements and evidence of the Council on Pharmacy and Chemistry, when opposed by the mass of evidence that could be elicited in any community from well-known, reliable and reputable practitioners of medicine, would have about as much show as a snowflake in Hades.

We will refer to a few of these specifically indicated "worst kind of nostrums," many of the thirty-nine being designated as "frauds"—just why forty was not taken, as was the case with Ali Baba, we cannot say, as it would have been no trouble to have made a selection of another one from the half-dozen or more advertised in display type in this same issue of the *J. A. M. A.*, that are not one whit better, nay, not even "just as good," as any of the thirty-nine. We will first limit our reference to five taken consecutively from the second column of these "worst kind of nostrums" and "frauds," all of which have been advertised in the pages of the *J. A. M. A.*, before it fell under sway of the small per-Simmons now controlling its destinies; and never in the columns of the secular press.

"Hayden's Viburnum Comp." has been used for more than thirty years past by numbers of the most reliable and reputable physicians in the land; and is known to be composed of Black Haw and other uterine tonics and sedatives.

"Gray's Glycerine Tonic" is made according to a formula originated and used by the late Dr. John P. Gray, while superintendent of the New York Hospital for Insane at Utica.

"Listerine" of known composition has become a household word and is used in the offices of and by the leading doctors and dentists in the largest cities and towns of this country, from Nova Scotia to New Orleans, from Portland, Me., to Portland, Ore.

"Pepto-Mangan," of demonstrable value, is a combination of iron, manganese and pepsin, emanating from the farbenfabriken of Gude of Leipsic, equally as reliable, responsible and trustworthy as Elber-

feld, Schering, Koechl, Knoll or Heilkraft, all of which occupy display positions in the advertising pages of the same issue of the *J. A. M. A.* as the article under consideration.

"Fellow's Syrup of Hypophosphites" is a most reliably prepared compound of known merit made according to the suggestion of Churchill more than sixty years ago. "*Maxima cum cura commixtus semperque idem. Compositio prima ante alias omniis.*" The formula of Dr. Churchill, dating back to more than a half century, never secured such advantages to both patient and physician as it has under the name copyrighted by Fellows, and for more than thirty years has been regularly used by thousands of the leading professional men of the United States and England.

As for the last three of these thirty-nine that have fallen under the ban of the high and mighty "Council," it makes us to laugh, as it will many others who *know from antiphlogistine, glycothymoline and unguentine* they have obtained most satisfactory results, and do not care a tinker's taradiddle as to *how* or by whom they are made. The leading surgeons every day call for and demand "Squibb's Ether," but how many of them *know* how it is made, and how many of them care? They know that it is an alcohol, and has similar compatibility—they also *know* that it is reliable—and why? By clinical experience. And so of the "thirty-nine articles," each and every one of which have been found to be of material value by practitioners of medicine and surgery who will not submit to the imperial dictates of any men or set of men.

ANTI-TYPHOID VACCINATION.

In a recent report of the *Public Health* and *M. H. S.* is given a summary of the findings of a commission appointed by the Paris Academy of Medicine, which has made thorough and complete investigation of the subject, and which says that although vaccination with the serum does not secure complete disappearance in infected localities, yet it unquestionably diminishes the number of cases; furthermore, the vaccinated who develop typhoid fever run a much milder course, and the mortality is not half that of the unvaccinated. The commission advises that only healthy subjects, free from organic disease or other defects, should be submitted to vaccination. The marked difference in the number of cases of typhoid in our recent army experiences in Texas, as compared with that of the troops assembled in the vicinity of Chattanooga a few years ago demonstrates that this so serious infectious disease is to be hereafter classed as preventable, and so we may record another victory for medical science.

DR. CHARLES E. DE M. SAJOURS:—With its issue of December 9, 1911, Dr. Charles E. de M. Sajous, of Philadelphia, became the Supervising Editor of the *NEW YORK MEDICAL JOURNAL*. While Doctor Sajous will work as a consulting physician, investigator, teacher, and author, and thus be in a position to keep in the closest touch with the needs of the medical profession.

Though born under the American flag, Doctor Sajous received his preliminary education in France. He studied medicine in Philadelphia, graduating with honors from the Jefferson Medical College in 1878. He served for two years as resident physician in the Howard Hospital, and in 1881 was appointed professor of anatomy and physiology in the Wagner Institute of Science, lecturer in the Philadelphia School on Anatomy, and clinical assistant in the laryngological department of Jefferson Medical College, succeeding Dr. J. Solis Cohen, in 1883, as clinical lecturer and chief of that department. In 1891 Doctor Sajous went to Paris, where he devoted six years to original research. Upon his return, he was appointed Dean of the Medico-Chirurgical College. At the recent reorganization of the medical department of Temple University Doctor Sajous accepted the chair of pharmacology and therapeutics, which he still holds.

The immediate outcome of Doctor Sajous's six years of research work in Paris was the publication of two volumes on *Internal Secretions and the Principles of Medicine*, a work which gave the author high standing as an original investigator.

Doctor Sajous has had a wide editorial experience, having founded in 1888 the *Annual of the Universal Medical Sciences*, which he conducted with the collaboration of some of the most eminent physicians in America and Europe, until the publication was abandoned in 1893. The *Annual* had a circulation of over 500,000 volumes and the *Cyclopaedia of Practical Medicine*, founded by Doctor Sajous in 1898 to succeed the *Annual*, and intended more particularly for the general practitioner, has attained a circulation of 240,000 volumes, the seventh edition being now in course of preparation.

The value of Doctor Sajous's services to medical science has been recognized in France by his being made a member of the Legion of Honor, while in Belgium he received the order of Leopold and was made a Knight Commander of the Liberator, besides receiving other titles, both governmental and scientific. In America Doctor Sajous has been president and vice-president of many societies and is a fellow of the College of Physicians of Philadelphia, and of the American Philosophical Society. He brings to bear on the editorial

problems of the NEW YORK MEDICAL JOURNAL a brilliant and well informed mind, wide experience, and a thorough knowledge of the needs of the American physician.

The publishers of the NEW YORK MEDICAL JOURNAL as well as its readers are to be congratulated upon having obtained the services of Doctor Sajous. Comprehensive and well directed plans have been formulated for enhancing the value and interest of the NEW YORK MEDICAL JOURNAL, and in carrying out these plans no pains or expense will be spared to give its readers a medical journal of unprecedented authority and interest.

A DISTINCTIVE PIECE OF LITERATURE:—"Here is something different." This is apt to be the first thought of the physician upon breaking the wrapper of Parke, Davis & Co.'s new brochure on bacterial vaccines and tuberculins. And the external appearance of the book is in no wise misleading. The "difference" applies to the printed page as well as to the handsome cover in artistically blended browns and gold. The brochure contains forty-eight pages in addition to the cover and thirteen full-page engravings in colors.

The work is divided into three parts or sections. Some of the subjects considered in the first section are: "What is the Difference Between Bacterial Vaccines (Bacterins), Serums and Toxins?" "How Are Bacterial Vaccines Prepared?" "Therapeutic Action of Bacterial Vaccines;" "When Should Serums Be Used, and When Bacterial Vaccines?" The second section treats of the origin and nature of the bacterins, the relative merits of "stock" and "autogenous" vaccines, the opsonic index, and the best method of using the bacterins, together with a description of each vaccine, including references to preparation, therapeutics and dose. The third section is devoted to a consideration of the tuberculins, with dilution and dose tablets, descriptions and illustrations of the various diagnostic tests, etc.

Briefly stated, the booklet is a concise review of the essential facts relating to bacterial-vaccine therapy, containing precisely what the seeker after this kind of information wants. It is not padded with clinical reports—in fact, it contains none. We understand that Parke, Davis & Co. will be pleased to send a copy of this unique and valuable brochure to any physician requesting it. Address them at their new home offices, Detroit, Mich., specifying the "new booklet on bacterial vaccines," and mention this journal.

A NEW POCKET PRACTICE OF MEDICINE:—If you had a little up-to-date emergency Practice of Medicine that would tell you just what you desired to know in all acute diseases and emergencies, combined

with a handsome Visiting List that you could always have in your breast pocket and that you could consult in the patient's presence without creating suspicion that you were "reading-up" on his case, you would have something valuable indeed. No doctor would like to take his ready-reference book out of his pocket and "read-up" in the patient's presence, but every doctor carries his visiting list and consults the same in the patient's room.

Now, if in this same visiting list is incorporated the Practice of Medicine giving diagnostic points, treatment and dose list of drugs, we have perfected what every doctor needs. Dr. C. A. Bryce, editor of *The Southern Clinic*, has now completed the publication of just such a book as we have described. It is very handsomely bound in flexible leather with ample flap, in visiting list style, as light and handy as any ordinary visiting list, containing a condensed Practice of Medicine prepared by the editor of the *Southern Clinic*, with the very able assistance of Dr. Marrs of Peoria, Ill., Dr. Waugh of Chicago, and Dr. Gould of Ithaca, N. Y.—all well known as authors and teachers, which means that no better Practice of Medicine can be produced in the English language. The Visiting List is on the perpetual plan; can be commenced at any time and good until used, containing accommodation for the average doctor's work for one year. This book is now ready for delivery and sells for \$1.50, including a year's subscription to the *Southern Clinic*, 4 East Clay Street, Richmond, Va., when cash accompanies the order.

LISTERINE is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, re-inforced by the antiseptic properties of ozoniferous oils.

After the volatile constituents have evaporated a film of boric acid remains evenly distributed upon the surfaces to which Listerine has been applied.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal con-

ditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution, Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

OLD AND NEW PREPARATIONS OF INCALCULABLE VALUE:—In the advertising pages of this issue will be found a beautiful four-page colored advertisement of Messrs. Fairchild Bros. & Foster which will repay careful perusal by our many readers. Their new candidate for professional favor, "*Laibose*," is composed of the solids of pure milk and the entire digestible substance of whole wheat. It is, therefore,, a concentrated food of the highest attainable content of actual dry nutritive material.

Furthermore, it is a well-proportioned food; the ration of protein and carbo-hydrate is scientifically and effectively standardized. Its average approximate composition is as follows: Total dry solids, 94 per cent;—protein, 18 per cent; fat, 17 per cent; carbo-hydrates, 55 per cent; potassium and lime phosphates, etc., 4 per cent—a nutritive balance of one part of protein (nitrogenous material) to three of carbo-hydrate; and a heat and energy co-efficient of five to one of protein.

Their old standards, Essence of Pepsin and Panopepton, are so well and widely known that comment is unnecessary on our part. Essence of Pepsin (Fairchild) is a most excellent menstruum for the iodides, bromides, and other drugs of unpleasant taste.

Holadin is an entire pancreas extract, exceedingly energetic in diastase, of great tryptic activity, presents in potent form the lipolytic enzyme; and Holadin with Bile salts is presented in view of the well-known inter-relations of the pancreas and bile secretions.

Oxyntin is a hydrochloric-acid protein in dry form, furnishing a practical means of reinforcing the proper acidity of the gastric juice.

WHAT IS BEST IN TONICS:—Many people, and perhaps a few physicians, are inclined to consider the terms "tonic" and "stimulant" as more or less synonymous and interchangeable. This, of course, is not the case, although some agents employed medicinally may partake of the properties of both and be properly known as "tono-stimulants." Strychnia, for instance, is a heart stimulant but may also be considered as a general nerve and systemic tonic when given in small and frequently repeated doses. While a stimulant

alone is sometimes indicated in conditions of emergency, its long continuance almost certainly produces an after depression. It is sometimes advisable, however, to give stimulant and tonic together in conditions of serious general depression, the first to "boost" the vitality and the second to hold it at the point to which it has been raised and to restore the general tone of the organism. An ideal combination of this nature is Pepto-Mangan (Gude) to which has been added the proper dose of strychnia, according to indications. This combination is especially serviceable in the convalescence of exhausting diseases such as Typhoid Fever, Pneumonia, La Grippe, etc. It is also of much value when the heart needs support and the general system requires upbuilding. Pepto-Mangan restores vitality to the blood by increasing the number of red cells and the percentage of hemoglobin, and the strychnia assists in rendering the combination a peculiarly efficient general bracer and permanent reconstituent.

NEUROTIC CONDITIONS IN WOMEN:—Prof. Chas. Vaughn, Chairman of Gynecology, Atlanta College of Physicians and Surgeons, writes: "Neuralgia constitutes the great cause of danger from the employment of hypnotics and narcotics, which only afford relief by numbing, but effect no cure. On the other hand, the formation of a drug habit rather aggravates the condition from which relief was originally sought. Neurasthenia, neuralgia and other manifestations, either of an active or passive character, are common and are always peculiarly rebellious to treatment. Cerebro-nervous affections peculiar to women associated with pathological disturbance of the reproductive organs are legion, and most trying to physician and patient. I have found nothing so well suited to these cases as Antikamnia Tablets, administered in doses of from one to three tablets and repeated every one, two or three hours according to the attendant's judgment. These tablets afford complete relief without fostering a drug habit and their exhibition is attended with no unpleasant after-effects. For the relief of painful menstruation there is no combination of remedies so generally successful as Antikamnia and Codeine Tablets. Their sedative, analgesic and anodyne properties especially commend them in the neuralgic and congestive forms of this distressing affection."

DYSMENORRHEA AS A PRE-DISPOSING CAUSE OF NEUROSIS:—Functional irregularities of the organs of generation, particularly if accompanied by pain, is possibly the greatest factor in the increasing number of women who consult the general practitioner presenting marked neurotic manifestations.

Where malformation is not present, successful treatment depends not only upon recognition of the cause, but the proper selection of a remedy for its removal.

To normalize pelvic circulation and to relieve pain without resorting to an opiate is the object to be accomplished. Since the time of Sims, the sheet anchor of the general practitioner in the treatment of menstrual and obstetrical conditions has been Hayden's Virburnum Compound, a dependable and reliable product.

In neurotic conditions dependent upon menstrual irregularities, Hayden's Virburnum Compound not only exerts a calmative but a corrective influence.

Samples of H. V. C. with formula and literature will be forwarded upon request to the New York Pharmaceutical Company, Bedford Springs, Bedford, Mass.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

A PROFESSIONAL COMPLIMENT:—In a recent copy of *The Johnson City Staff* we find the following: Reminding the doctors of the exalted nature of their calling, Dr. Edwin Alderman in an address delivered a few days ago, said: "The medical profession stands in a class all by itself among human callings. Its ancestry is as old as pain and suffering. Its slow and blundering but majestic progress through the ages, since the Greek intellect gave it birth, illustrates so impressively the triumphs of the human mind and the human spirit; its service to mortal man has been so immeasurable, that merely to laud it is to touch it with the commonplace." Of the modern medical man he said, "What the priest was in the ages of faith, the soldier to the turbulent military epochs and the lawyers to the beginning of organized movement, the doctor is destined to be in an era of peace and industrial democracy. Indeed one must

hark back to such epic figures as Hildebrand or Justinian or Napoleon to find just comparison with the great figures of science whose achievements change the fate of empires and effect the peace and happiness of millions."

THE MANAGEMENT OF CONVALESCENCE:—The systematic use of Gray's Glycerine Tonic Comp. following pneumonia, acute bronchitis, LaGrippe, typhoid fever, the exanthmata and other acute affections, gives such material aid to the restorative and recuperative processes of the body that the convalescent period is not only greatly shortened, but it is freed from practically all of its danger and uncertainty. Normal physiological activity of all vital functions is promptly established and with these working in harmony recovery from an acute disease is usually perfect and complete. Gray's Glycerine Tonic Comp. by reason therefore of its proven value as a restorative is probably more often used for promoting convalescence than any other remedy. Its certainty of action, the positive benefits produced, and its freedom from any unpleasant effect no matter how weakened the patient may be, leave little reason for questioning the preference now so generally shown this dependable remedy. That it serves a purpose in convalescence so far reaching and important, and serves it so well, is all the justification needed for its invariable use just as soon as the fury of a pathologic storm has passed and the reconstructive or convalescent period begins.

A STORE OF FAT AND STRENGTH:—A store of fat and strength in the tissues affords the best insurance against the infectious processes, for so supplied, the body is well able to resist disease. It is pretty generally accepted at the present day, that the best means of charging the tissue with the power of resistance lies in cotton seed oil, the most dependable tissue food at the profession's command. NUTROMUL (Brown's Cotton Seed Oil Emulsion) is growing into wide favor for this purpose, for it contains a large percentage of cotton seed oil in an easily digested and assimilable form. The positive worth of the oil in this emulsion, is added to by the incorporation of the hypophosphites of lime, soda and manganese. NUTROMUL is palatable and as it does not cause gastric unrest, it may be given for long periods. Sample bottle to any reputable medical man without charge if request is sent to Nottoc Laboratory, Atlanta, Ga.

THE ACCOMPLISHMENT OF IDEAL SEDATION:—In the accomplishment of ideal sedation, a drug must possess undoubted therapeutic activity and be free from dangers or distressing after-effects. Whilst

chloral, for example, is therapeutically active, yet its administration is attended by certain dangers, not the least among them being the possibility of habit-formation. The drug most nearly meeting the requirements of the ideal sedative and soporific, is PASADYNE Daniel's Concentrated Tincture of *Passiflora Incarnata*), which, as is well known, was formerly called Daniel's *Passiflora*. Under its influence, an excited brain quiets down, and refreshing sleep is produced. Pasadyne is reliable, and as it does not constipate or subject the patient to other evil effects it is far preferable to similar agents. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

REDUCING SUSCEPTIBILITY TO "COLDS."—The annoyance of cold that follow atmospheric changes, even of a mild degree, impress the susceptible individual with the need of improving his bodily vigor so that he will be better able to resist them, and he frequently comes to his medical attendant in search of measures that will accomplish this. Many employ the Cordial of the Extract of Cod Liver Oil Compound (Hagee) for this purpose, owing to its well known power to add strength and resistance to the lining membranes of the respiratory organs, thus enabling them the better to combat microbic attacks. In inflammations of these organs Cord. Ext. Ol. Morrhuae Comp. (Hagee) has power to be of the utmost service, as it has, also, in their prevention.

GLYCO-HEROIN (Smith) relieves, with almost incredible promptness, cough of every character. It dispels the pain, stimulates respiration, increases expectoration, allays hyperemia and invigorates the mucous membrane lining of the bronchii and bronchioles. Being eliminated, in part, through the lungs, the preparation exercises a direct antiseptic influence upon the air passages. It is decidedly more potent than preparations containing morphine or codeine, and by virtue of the fact that it does not inhibit the secretions, induce constipation, nor beget the drug-habit, it is conspicuously valuable in the treatment of chronic coughs and the cough of phthisis. Furthermore, it enjoys the preferment of the most exacting members of the medical profession. Its exploitation is restricted to ethical channels.

TONGALINE thoroughly fulfills the requirements of a successful remedial agent on account of its excellence of material, its uniformity and its reliability.

For nearly thirty years Tongaline has been extensively prescribed by thousands of physicians in the treatment of rheumatism, neuralgia,

grippe, gout, nervous headache, sciatica, lumbago, malaria, heavy colds, tonsillitis and excess of uric acid.

EXCELLENCE:—Every ingredient in Tongaline is the freshest, the purest and of the very best quality; only Natural Salicylic Acid is used.

THE ESSENTIAL BLOOD ELEMENTS which all convalescents lack, and which are so important, have been found by many leading physicians in *Bovinine*. It raises the opsonic index to normal standard and prevents chronic invalidism. It is not only a nutritive tonic, but, being rich in elementary iron and all essential elements necessary for complete cell reconstruction and nutrition, it re-establishes completely normal metabolism, thus assuring a quick recovery from all wasting diseases.

A GRAND AND GLORIOUS CHRISTMAS GIFT:—Clara Barton attained her ninetieth birthday on Christmas Day. She was called by Abraham Lincoln the most able and noble woman he ever met. Her life has been a blessing and an inspiration to mankind, and although she may not, in the natural conditions controlling life experience many returns of her natal day, yet will her name and good deeds live long in the land so blessed and benefited by her life and her great life-work.

RELIABILITY:—Tongaline unquestionably possesses certain definite therapeutic properties, hence the physician can always rely on securing the desired results whenever Tongaline is prescribed.

Tongaline is presented in the form of Tongaline Liquid, Tongaline Tablets. Tongaline and Lithia Tablets and Tongaline and Quinine Tablets.

THE BALANCE OF HEALTH is due to cell metabolism. In child-bed fever and infectious diseases this balance may be obtained by the use of the cell product known as *Protonuclein*, made by Reed & Carnrick. In more than one case of septic infection, where surgical measures were not applicable, it has been of unquestioned value.

CHIONIA is a gentle but certain stimulant to the hepatic functions and overcomes suppressed biliary secretions. It is particularly indicated in the treatment of Biliousness, Jaundice, Constipation and all conditions caused by hepatic torpor.

SENG is a stimulator of digestion used alone or as a vehicle to augment and aid the natural functions.

PEACOCK'S BROMIDES IN EPILEPSY and all cases demanding continued bromide treatment, its purity, uniformity and definite therapeutic action insures the maximum bromide results with the minimum danger of bromism or nausea.

CACTINA PILLETS made from *Cereus Grandiflorus* in its most efficient form is a most persuasive heart tonic to improve cardiac nutrition.

Selections

HYPERTRICHOSIS AND ITS TREATMENT:—The treatment, or rather the removal of superfluous hair from the chin or upper lip of women, has always been more or less tedious and painful. The so-called painless depilatories have never proved to be of permanent value. In fact, the harm done by them more than counterbalance the good effects produced temporarily. The continued use of depilatories aggravates the condition and demands a more frequent repetition, etc. Yet, in spite of the above objections, we find many woman make use of depilatories. Their best recommendation is that its application is painless, there is no need of assistance, and its rapidity of action.

In the consideration of the more permanent means of the removal of superfluous hair. galvanism deserves serious consideration. This is done by introducing a needle into a hair follicle and charging with the current from the negative pole, until the hair follicle is destroyed. This method is somewhat painful and requires numerous sittings, depending, of course, upon the number of hairs that are to be removed. By this method 10 to 15 per cent of the hairs so treated are liable to return. The main objections to this method are the probable scarring that may follow, and even the development of keloids.

Pulling out the superfluous hair by various means was at one time practiced. This is too tedious, painful and hardly applicable if there are too many hairs to deal with.

In view of the above inconveniences and complications, A. T. Geyser (*American Journal of Dermatology*) prefers the use of Roentgen rays for the removal of superfluous hairs. The current obtained from a coil is preferred. However, a static machine may be used. When the static machine is used great care is necessary so that the tube does not get too hot. The contact surface must remain cool. The interposition of a moist napkin between the contact area and the surface of the tube will serve the purpose. From whatever source the rays are generated the aim should be to keep the contact surface of the tube cool. Treatments are administered twice weekly. The treatment is applied to the same spot until clean. While a new area is under treatment the old or unclean spot must be treated at least once a week to prevent return. The coarser hairs will fall out first, while the finer appear to be more resistant. He concludes by saying that, with the proper technique, success in the permanent removal of superfluous hair by means of the X-ray is practically assured.—A. W. Nelson, M. D., in *Cincinnati Lancet*, Clinic of Nov. 4, 1911.

TREATMENT OF PNEUMONIA:—A pitcher of water, a goblet, and teaspoon are at the bedside. Twenty strychnine arsenate granules, gr. 1-30, 18 granules of atropine, gr. 1-250, 18 digitalin, gr. 1-67, and 18 glonoin granules, gr. 1-250, are put into the glass. Crush them, and put 24 teaspoonfuls of water in the glass. When completely dissolved, give of this mixture one teaspoonful every one-half hour for three doses. By the end of that time the skin is active. Vasomotor disturbance is overcome. As a plug puller, to remove the fibrous material, to stimulate still further, to defibrinate, give: Ammonium chloride, drs. 2 1-2; syrup of glycyrrhiza, glycerin, of each sufficient to make a 4-ounce mixture. (Dr. N. S. Davis, *Medical Record*, 1874.) Label: Give one teaspoonful every three hours. As a local application I use equal parts of guaiacol and lanoline. Thin cloths are saturated with this and spread evenly over the

chest and all is covered with a well-fitting cotton jacket. If my patient is addicted to the use of alcoholic stimulation, I give him his usual amount, even a little more.

I begin the course by a good, thorough physic with calomel and saline laxative, followed by the sulphocarbulates of lime, zinc and soda. After this cleaning out I content myself if my patient has but one evacuation per day during the rest of his illness. I give all the brandy my patients can take and be classed as sober. I push every remedy enumerated above to full physiological effect; then I maintain that effect. And I wish to say right here that you cannot maintain the effect with a galenic preparation for one week or ten days and hold steady the effect you want—the stomach will get so irritable that all treatment would have to be suspended. Not so with these principles: they are always kept down, and if the idea of “clean out, clean up and keep clean” is adhered to, their uniform, steady and sure effect can be relied upon.

I never use aconite, but I do use *aconitine*. I use aconitine for the first twenty-four hours, but not after that. I depend on emetin to thin the expectoration, and it will do it. It makes the cough less labored. A little morphine, to relax the patient, often is a fine thing to give.—*Dr. W. H. Aylesworth, The American Journal of Clinical Medicine, December, 1911.*

NOT TO BE READ BEFORE GOING OUT TO LUNCH:—The *Monthly Bulletin*, Indiana State Board of Health (August, 1911), details what the sanitary crank has seen in cafes: “a waiter wiping his sweaty forehead with the towel he carried on his arm for wiping dishes, knives, forks and spoons, which had been used a short time before, simply wiped on a not too clean tea-towel without even dipping them into water; tumblers, after having been used at the table, simply wiped with a not too clean tea-towel without even dipping them in water; knives, forks and spoons and tumblers after

use at table rinsed in greasy yellowish dish water, and then wiped with a tea-towel which was an approach to rubber roofing in color; restaurant kitchen help pass hands through their hair and then handle sliced bread; two mice jump out of a bread box and the sliced bread therein sent to the table as if nothing had happened to it; a waiter picks two flies out of a glass of milk with his fingers, and then places it on a table to be drunk by a child; a cook at a nickel-bound grill in white cap and coat, inserts his finger in his mouth to scratch the interior surface and upon removal immediately picks up a nice porterhouse steak and places it upon the broiler; flies proceed direct from a spittoon to a bowl of berries on the counter, which are waiting there to be served when called for; a cook changes his shoes and socks in the kitchen and then, without washing his hands, proceeds with the handling of food; a bowl of sugar spilt upon the floor, then picked up with the hands and carried directly to the table; a basket of lettuce on the floor in a restaurant kitchen and a dog belonging to the cook—*Quantum sufficit!*—*New York Medical Times*.

A POSITIVE TEST FOR HUMAN BLOOD FOUND:—Until quite recently the detection of bloodstains, obviously a very important subject in connection with the forensic medicine, involved methods which were at best clumsy and very often inconclusive, says a news item from London.

Science had to own itself at fault until the serological test for blood was discovered. It was adapted to its present purpose by Dr. Uhlenhuth, a distinguished German scientist, and has now been acknowledged by the highest legal authorities in Germany, France and Austria as infallible evidence of human bloodstains.

Dr. Rajchman, who is in charge of the Royal Institute of Public Health, demonstrated the method of identifying human blood recently. The explanation necessarily in-

volved much scientific and technical detail, but this, briefly, is what is done:

A rabbit inoculated with human blood. The rabbit does not suffer, but after a certain time the serum taken from the rabbit—a slight incision on the ear is sufficient—supplies the material for the test. When the material with the suspected bloodstain arrives at the laboratory the blood is scraped off, or if on linen, the threads are separated. Then it is deposited in a saline solution, so as to get the requisite density. The serum from the rabbit is then added, and if there are any traces of human blood a milky ring forms almost immediately in the test tube. This test is so sensitive that the blood of an Egyptian mummy thousands of years old has responded to it.—*Medical Sentinel*.

SUGGESTIONS FOR TREATMENT FOR KIDNEY DISEASE AND ARTERIO-SCLEROSIS:—I cannot give treatment in detail in this paper, but will briefly summarize. Exclude in diet, pork (except breakfast bacon occasionally), beef, waffles, batter-cakes, food fried in lard, coffee (except one cup for breakfast), tea, coco-cola, alcoholics, tobacco if it increases arterial tension. Rigid milk diet is rarely necessary and only in severe cases. Salt used sparingly in severe cases and in cases with œdema. Allow a liberal supply of water not sufficient to overtax the heart but sufficient for proper elimination. Bitter tonics with digestants and disinfectants just before meals. Mild alkaline diuretics combined with iodide potassium in small doses and tongaline, with the addition of a laxative which acts well in many cases if the bowels are constipated. Salol, urotropin and benzoate soda, each three grains, acts well in toxic, septic and suppurative conditions. Large doses of urotropin and irritant diuretics are injurious and should not be used. Pork, beef, alcoholics, tobacco, etc., are not essential for proper nourishment of the body. Sufficient proteids can be supplied in other articles of food, the end results and meta-

bolism of which are not so deleterious to the vital organs and tissues of the body. Alcohol is not a physiological food, not strictly a stimulant, its food value is questionable and fraught with such evil consequences that it has no place in the dietary or treatment of kidney lesions nor arteriosclerosis.—*R. M. King, M. D., Atlanta, Ga., in Charlotte Medical Journal.*

THE NOGUCHI TEST:—A consideration of a table comparing the results obtained by both the Wasserman and the Noguchi systems given in Noguchi's last textbook shows 1,777 cases of syphilis in all stages on which both tests were used. In this series the Noguchi test was positive in 88.2 per cent, a considerably greater percentage than the Wasserman. The second stages and the hereditary cases giving the highest percentage of positive results, viz., 98 per cent. The greatest percentage of failures were found in cases of latent syphilis. Even in this series the Noguchi method gave 14 per cent more positives than the older method.

While it is evident that we have no absolute standards as the results of this test I believe that we can say that barring a few readily recognized diseases which may give a positive result, that a positive result means syphilis is present. A negative result in itself means nothing and should be repeated. A series of negatives would be good evidence that the disease is not present.

What the effect of treatment may be on this reaction and whether or not a disappearance of the reaction means a termination of the disease are questions to be settled by time and careful study.—*C. O. Boswell, M. D., in Long Island Med. Jour.*

ALCOHOL FOR HAND DISINFECTION:—Schumburg, in the *Deutsche Medizinische Wochenschrift*, says that washing the hands with strong alcohol is a most effective means of removing all infection and rendering any bacteria innocu-

lous. He says that 200 c. c. of alcohol applied with a pledge of cotton-wool are sufficient to disinfect the hands to the extent of 99 per cent or more of all bacteria present. Ordinarily methylated spirit is quite effective. From experiments in the medical department of the Prussian Ministry of War it appears that washing with soap and water combined with even prolonged scrubbing with a brush does not remove the microbes, the soap softening the skin and making the bacteria more adherent. Alcohol, on the other hand, by hardening the skin, causes the bacteria to become rapidly detached. To secure proper disinfection with alcohol the preliminary use of soap and water must be dispensed with, the reasons given being that the residual moisture, even after drying, dilutes the alcohol, and further that the softening of the skin by water causes it to contract too strongly when the alcohol is applied, and by rendering it rough and scaly encourages the transference of bacteria from the surgeon's hands to the wound. Inasmuch, however, as the wearing of gloves for operations has been now so generally adopted, disinfection of the hands has not the same importance that it once possessed for the success of aseptic surgery.—*Charlotte Medical Journal*.

HORSEBACK EXERCISE:—The increasing number of women drivers of automobiles indicates that the former ambition of the athletic young woman to ride and manage a horse is steadily on the wane.

A comparison of the woman acquiring physical poise, healthful exercise, and a cool head on horseback, with the same woman acting as chauffeur on a crowded thoroughfare is not pleasing.

Nothing is better calculated to develop a humane tendency in either man or woman than association with and fondness for animals. The comradeship existing between a good horse and his rider or driver is something which must be experienced to be appreciated.

While there seems to be a large number of horses employed at the present time, notwithstanding the rapid increase of motor vehicles, there are many communities where the raising of fine driving horses was once common in which this industry has practically died out. From the standpoint of physical development this is certainly to be regretted.—*Monthly Cyclopedia and Medical Bulletin.*

CHLORETONE IN TETANUS:—Croley (Indian Medical Gazette) makes the following statement:

1. The case was a very acute one, the spasms and trismus and opisthotonos being very marked.

2. Except for the chloral and bromide the first day and on the evenings of the seventh and thirteenth days no other drug was given but chloretone.

3. No anti-tetanic serum was injected.

4. The fact most worthy of attention was the relief of trismus, which enabled the patient to take ample nourishment and so maintain his strength.

5. The convulsions were a very marked feature of this case. In the note by Dr. Sheaf in the British Medical Journal article, he says that tetanus not only kills by the direct action of the toxin, but by the exhaustion produced by the convulsions, so the drug was given a most severe test.

Croley is convinced that the man owes his life to chloretone, and he strongly commends the drug be given a trial.

TYPHOID SERUM SUCCESSFUL:—During a recent discussion in a session of the American Hospital Association every physician who spoke testified to the benefits resulting from the use of anti-typhoid serum. Supt. J. M. Cosgrove of the Winnipeg General Hospital stated that before the serum came into use it had been almost impossible to prevent the spread of the fever among nurses. Dr. H. W. Austin of the United States Marine Hospital Service, stated that the serum is being more and more used in the many hospitals, and with success. He believed it the greatest preventive

of the disease yet found. Dr. Morrell of Baltimore detailed the results of its use in the army camps at San Antonio; that among 1,200 men submitted to the treatment only one had the fever and that in a very mild form. (Vaccination against typhoid is now obligatory in the United States Army.)—*New York Medical Times*.

THE ADVANTAGES OF SULPHUR AS AN INTESTINAL ANTISEPTIC:—Wild (noted in *Charlotte Medical Journal*, 1911, July) says: (1) Sulphur is almost tasteless and easily administered. (2) It is insoluble in the stomach, and the greater part of it passes along the whole length of the alimentary canal. (3) It does not interfere with the action of any of the digestive secretions. (4) It forms active antiseptic substances in the intestines when their contents become neutral or alkaline. Some of these substances are gaseous and penetrate to all parts of the intestine. (5) It is sufficiently nonpoisonous to be given in effective doses. (6) It has valuable laxative properties, which promote an early evacuation of the intestinal contents. (7) It is cheap.

EFFECTS OF TOBACCO IN SURGICAL PRACTICE:—L. Bolton Bangs, of New York, gives several interesting cases in which habitual smokers had been deprived of their tobacco habit in connection with a surgical operation, and had developed dangerous symptoms of collapse only to be relieved by the use of tobacco, which at once returned them to a normal condition. The author thinks that tobacco smokers become so accustomed to the heart stimulant properties of tobacco that they at once miss it and it has become a real necessity to them. These cases also show the rapidly stimulating effect of tobacco by inhalation.—*Medical Record*.

USES OF IPECAC TO ABORT TYPHOID FEVER:—William Lawrence Frazier, Mountain Home, Idaho, presents the

histories of six cases of typhoid fever in which he made use of ipecac to abort the disease. The drug was given in capsules coated with salol to prevent their dissolving in the stomach and causing vomiting. The ipecac was given for six successive days beginning with thirty grains, and decreasing five grains each day until the dose was ten grains. The author believes that the disease was aborted by means of this treatment.—*Medical Record*, November 4, 1911.

SPRAINS MAY SIMULATE FRACTURES in many details, states W. S. Stern (*Ohio State Medical Journal*). There may be a spurious crepitus felt during the first hours, but after twenty-four hours this will have disappeared. The deep brawny swelling and the ecchymosis always present in fracture will usually be lacking in sprain, and the X-ray will show no bony changes. Sprains complicated with the tearing off of the outer bone lamella will give the same swelling and discoloration as an ordinary fracture.

AVIATION VICTIMS:—With the death of Ely on October 19, the list of persons killed in aeroplane accidents has reached 101, of whom seventeen were Americans. The first person to be killed through an accident to an aeroplane was Lieut. Selfridge, who died in 1908, the only victim that year; but in 1909 there were 4, in 1910, 32, and so far in 1911, 64 deaths. Only one woman, a Frenchwoman, is included in the list.—*Medical Fortnightly*.

RAILROAD FATALITIES:—According to the report of the Interstate Commerce Commission for the year ended June 30 1911, there were 10,396 persons killed on the railroads of the United States, and 150,159 injured. Of the number killed only 386 were passengers and more than one-half the total number were trespassing upon railroad tracks or stealing rides.—*Medical Fortnightly*.

ANTIPYRIN AND CALOMEL are incompatible according to the *Jour. A. M. A.* A mixture of one part of calomel, three of antipyrin, and six of sodium bicarbonate. On treating this mixture with water a bluish grey residue is left and two grains of calomel in such yield 1-3 to 1-2 grains of corrosive sublimate.

INTESTINAL OBSTRUCTION:—R. Morison states that for some years he has taught that the diagnosis of intestinal obstruction is based upon a trinity of signs as follows: (1) spasmodic pain; (2) inability to pass flatus: and (3) evidence of increased peristalsis.—*Edinburgh Medical Journal.*

GALLOWAY HOSPITAL:—Nashville has just closed a successful whirlwind campaign during which \$150,000 was subscribed by its liberal and loyal citizens, for the erection of the first unit of the Galloway Memorial Hospital.

This promises to be but the beginning and unit after unit will be added until Nashville may boast of having the finest hospital in the South. The directors guarantee to provide for one hundred charity beds, and to equip the new institution with every modern appliance necessary for complete scientific investigation of disease. Laboratory facilities, under the direction of the Medical Department of Vanderbilt University, are provided free of all cost to the charity department and guaranteed by the university in return for clinical privileges. These same facilities are at the command of the pay department at a nominal expense. Approximately four acres of the south campus (formerly Peabody campus), was donated by Vanderbilt University and the erection of the first unit will soon be begun. This unit will be for administration headquarters and for both pay and charity patients. The directors promise that the second unit shall be entirely for charity patients.

We most heartily commend the gentlemen at the head of this enterprise for their untiring efforts and congratulate them upon their success.—*Jour. of Tenn. State Med. Assn.*

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MOVABLE KIDNEY.

BY H. M. TIGERT, M. D., OF NASHVILLE, TENN.

Mr. President, and fellow members of the Asclepian Club:—I have been led into a consideration of this subject, not because of wide experience nor yet because of any originality of thought—in fact, most of what I shall have to say has been gleaned from the fields of eminent workers along this particular line of endeavor.

Two phases of this interesting condition especially attracted my attention; *first*, the comparative frequency with which nephroptosis was encountered while making

*Read before the Nashville Asclepian Club.

routine examinations of patients, who had applied for relief from various other conditions; *secondly*, I have been impressed in more than one instance, where patients have been subjected to nephrorrhaphy, having been promised a complete surcease from a long list of symptoms, that the operation did not prove the boon expected and in many cases the patient's condition was actually made worse. The phase first presented, often offers, to me at least, a number of perplexing questions, viz, is the movable kidney giving rise to any disturbance? If so, what symptoms are referable to it and what symptoms are due to associated conditions? What are the factors in movable kidney which should lead one to recommend operation and what results may be expected.

The second phase (patients subjected to operation without benefit) has led me to assume that this malady is not generally and thoroughly understood, and that a correct clinical interpretation is not always placed upon this condition. The search for light upon these points constitute my sole object for presenting this essay.

Since a pathologically movable kidney seldom occurs without other morbid conditions of the body, and since it is often very difficult to say which of these various symptoms presented in a given case, are produced by the movable kidney, and which are produced by the other pathological conditions; there has arisen a diversity of opinion both as regards the symptomatology, and the relief obtained by fixing movable kidneys. "The recorded observations on this subject date back to the year 1561 and constitute a voluminous though widely scattered literature, which is characterized by a lack of comprehensive unity in every phase of the subject from nosology to therapy. To the present time all statistics bearing upon the frequency of nephroptosis are based upon the existence of palpable kidneys of whatsoever degree of significance. It must be born in mind, however, that a kidney which is

accessible to palpation, has not necessarily trespassed beyond the confines of the normal, for it must be accepted as proven beyond controversy, that the kidneys normally displayed varying degree of mobility. It is difficult to establish a differentiating border line between such physiological mobility and pathological prolapse, inasmuch as the range of mobility seems to present no proportionate index in the intensity of its clinical manifestations." (Sturmdorf).

Some cases exhibit a degree of mobility far exceeding any range which could possibly be considered as normal and yet experience no discomfort whatever referable to the kidney, while on the other hand there are cases in which the kidney is not movable beyond what we have a right to interpret as perfectly normal mobility, and yet give rise to symptoms which demand radical correction.

From the foregoing facts, the question naturally arises what constitutes nephroptosis?

Abnormal visceral mobility means abnormal visceral support, and before we can arrive at any scientific conclusions in regard to movable organs we must master the physiological elements concerned in their support.

The nature of normal kidney support has long been a subject for speculation and a matter of controversy. Practically every structure with which they are anatomically or functionally related has been suggested at one time or another as their supporting element; however, the recent investigations and experiments upon the vertically suspended cadaver, carried out by Wolkow and Delitzin have practically established intra-abdominal pressure associated with the shape, size and conformation of the receptacles, situated on either side of the spine and normally occupied by the kidneys as the most potent factor in normal kidney support. All of the various factors to which heretofore normal kidney support has been attributed, may be considered as contributory factors to the one just outlined. Omitting theoretical considerations, accord-

ing to Arnold Sturmdorf normal kidney support may be practically defined as the resultant of two essential factors, a retaining pressure of adequate intensity and a receptacle of accurate conformation. The retaining pressure is exerted by the normal tension of the general peritoneal sac applied to the anterior kidney surface in the manner of an inflated cushion, propping the organ against its receptacle.

This pressure is reflexly regulated by the activity of the abdominal muscles. Of course it stands to reason that the more extensive the contact between the posterior surface of the kidneys and these depressions the more efficacious the retentive power of intra-abdominal pressure.

With these cardinal factors of normal kidney support before us, we are in a better position to approach the subject of nephroptosis. The receptacles just mentioned are formed by the declivity on each side of the anterior aspect of the lower dorsal and upper lumbar spine. They are funnel shaped recesses, narrow below in the male, more cylindrical and shallow in women; a peculiarity more marked on the right side, and appearing with the broadening of their pelves at the advent of puberty. Hence we see one reason why this condition has such a propenderating frequency among women, and why the right side is the one most frequently affected. Deviations from the normal in these receptacles constitute one of the chief factors in nephroptosis. "The causes of such deviations are embraced in the whole category of congenital and acquired skeletal deficiencies, and while the external manifestations of skeletal deficiencies have received brilliant illumination from modern orthopedic science, these clinically related internal manifestations or visceral orthopedics, constitute an unwritten chapter." (Sturmdorf).

This paragraph I have quoted in full from Sturmdorf because I think it opens up for thought a field of investigation which has in the past been almost totally neglected.

The pressure that maintains the kidney in its normal

position will of course tend to perpetuate its instability when displaced. Again quoting Surmdorff, "It is a recognized law in physics that a body impinged against a given surface is subject to deflexion according to the angle of the plane of that surface. This law governs in establishing and maintaining visceral equilibrium within the abdominal cavity, against the displacing force of gravity and the functional activity of the mobile, abdominal contents; but for the influence of such planes in deflecting and directing abdominal pressure, every erect biped would carry his abdominal contents in his pelvis."

In summing up the natural supports of the kidney in the order of their importance, we should place first, and of greatest importance that indefinable, but well recognized factor of intra-abdominal pressure; second, the position of the kidney, snugly ensconced in the paravertebral spaces; third, the perirenal fascia, as described by Glante-nay and Gosset; fourth, the reflection of the peritoneum to the liver and duodenum or the spleen; fifth, the blood vessels; and last and of doubtful importance the fatty capsule. (Douglas).

Sustained in its position by these several factors it naturally follows that displacement and loosening of the organ will occur under two conditions: first, from loss of intra-abdominal pressure; and second, from weakening and elongation of its local supports. It so happens often-times, that more than one element is active in the production of a displacement. Conditions under which there is a loss of intra-abdominal pressure are usually attended by local changes thus doubly favoring displacement. (Douglas)

Taking up the etiological factors of this condition more in detail, we find that it occurs most frequently between the ages of twenty-five and forty-five, however one observer, Comby, records eighteen cases in children, the youngest one month old. Here I might mention that the kidneys are normally more palpable in children. Women are by

far more frequently affected than men, authorities agreeing that it is from ten to sixteen times more frequent in women.

It is often stated that multiparous women with pendulous abdomens furnish the greatest number of subjects with movable kidneys. They may be considered as typical examples of lowered intra-abdominal pressure. According to Harris forty per cent occur in nulliparous women. Deaver and other eminent authorities however find it more frequent in neurasthenic nulliparous women, especially in slender women with long sloping lower ribs of marked inward curve. Harris tells us that the essential cause lies in the particular body form, the chief characteristic of this body form being a marked contraction of the lower end of the middle zone, with a diminution in the capacity of this portion of the body. Naturally these are the patients we would expect to have shallow and badly formed kidney receptacles; thus this observation further substantiates the findings of Wolkow and Dilitzin.

Increased weight of the kidneys, whether from tumors, calculus or enlargement, leads to a yielding of supports and deranges the conformation of the kidney to its receptacle; hence, descent of the organ .

Lancereaux and Becquet give menstruation as an important cause of this affection in that it produces or is attended by congestion of the kidneys, the periodically recurring increased weight of the organs resulting in gradual relaxation of their capsules. To this cause very little importance is attached by most observers.

Chronic constipation is about six times as common in women as in men, and Newman has pointed out that the ascending colon joins the transverse by an obtuse angle or even with a dependent loop; fecal matter is passed through this portion of the canal by peristaltic power only, and in chronic constipation there is constant traction in this locality; thus tugging upon the peritoneum, which is re-

flected over the upper pole of the right kidney, is an element to be considered in causing its displacement, and in some measure it accounts for its frequency in females; and it further explains the frequency of displacement of the right kidney; furthermore, the increased effort required at defecation heightens the intrathoracic pressure, which exerts itself upon the kidneys. (Douglas).

Tight lacing and traumatism have been described as playing a more or less active part in kidney displacement by various authors.

The symptomatology of movable kidney with its various associated conditions, constitutes one of the longest chapters in medical literature. The scope of this paper and the time allotted me will not admit of a comprehensive and exhaustive consideration of this phase; therefore, I beg leave to present only a short outline of the most essential features.

The symptoms in many cases, I might even say a majority of cases, are mingled with those of other visceral ptoses. Just here I wish to introduce some statistics, not withstanding the fact that it had been said that there are three kinds of lies, viz, just lies, damn lies and statistics. My opinion is that statistics have thus been abused more because of their personal equation rather than because of any actual fallacy resulting from information so arranged.

Smithwick of Boston reviewed his records of private cases including all with ptoses of either kidney and excluding all with ptoses of neither kidney. This compelled him to exclude several cases of marked gastropptosis and a few with marked nephroptosis. The minimum degree of nephroptosis for inclusion in his list was that enabling the kidney to be definitely grasped (not touched) during inspiration. With these restrictions he found sixty-eight cases. The right kidney was down in all or one hundred per cent, the left kidney in twenty per cent, the stomach in sixty-two per cent, (and of course the colon in an equal

number), the liver in seven per cent. Thirty-four of the fifty-seven females had pelvic examinations and there was a marked ptosis of the uterus in some direction in eighty per cent. The urine showed no serious disturbance of the renal function in any case. From these statistics, it is quite obvious that the symptoms presented by a majority of movable kidney cases, having symptoms at all, are necessarily more or less shrouded in those of ptoses of other organs.

The symptoms of *ren-mobilis* are for the most part reflex in character, but there are also those which are local or due to mechanical action.

The chief symptoms may be placed under the general heads—pain, dyspeptic and neurasthenic disorders. I have already called attention to the fact that the symptoms are not always in proportion to the extent of mobility.

"The degree of pain varies from a dull aching to acute lancinating pain. It is usually referred directly to the region of the kidney and is more or less constant. In many cases it is uncomfortable or painful for the patient to lie on the side opposite the displaced organ. If there should be a twist or kink of any kind in the ureter, this will give rise to intense pain and eventually to hydro-nephrosis. (Dietel's crisis) .

"Should complete rotation of the kidney occur, not only is the ureter compressed but the renal vessels and nerves are also involved. The result is agonizing pain with collapse, nausea, cold sweats and scanty urination. In short, most of the symptoms of renal colic are present." (Sinkler)

Besides painful renal crises, there are a vast array of symptoms which appear before the movable kidney is discovered, or may clearly follow discovery. These symptoms include the form of gastric indigestion known as "nervous dyspepsia," hypochondriasis or some other of the manifold varieties of the neurasthenic state. To determine whether the mobile kidney is a part of a general enter-

optosis, whether the symptoms ascribed to it are only a part of neurasthenia, or of the period of the climacteric, or whether the nephroptosis is primary; is the first clear duty of the diagnostician.

Every case absolutely demands a most careful examination, not only of the kidney but of every organ in the body, and an opinion ought only be given after the most mature deliberation and careful consideration of the type of patient in hand. Unquestionably there are cases with practically no symptoms, which develop marked nervous derangement after being told of the condition.

Treatment:—Uncomplicated movable kidney, which is undoubtedly causing symptoms calls for fixation. In cases where ren-mobilis is a part of a more or less general ptosis of other organs, nephrorrhaphy may be resorted to for the relief of severe kidney symptoms, such as Dietel's crisis. In every such case, however, the patient should be fully aware of the fact that the operation is undertaken for the relief of one set of symptoms only and that a cure of the general condition will not be obtained.

Bands and pads are practically worthless in the vast majority of cases, however an occasional case may be found, where some comfort accrues from their use. "The abdominal belt will add comfort in the diastases and relaxation of the abdominal muscles now and then, but it can not in any way support a prolapsed kidney.

"The abdominal muscles are the guardians and regulators of intra-abdominal pressure; they are constantly active, automatically yielding when the pressure increases and contracting when it diminishes. Loss of tone and function in these muscles can not be replaced by an elastic webbing.

"It is impossible to hold a prolapsed kidney in normal position by an endurable pressure or tension exerted through the abdominal wall; not even the trained hands of the examiner can restrain a movable kidney; coughing, sneezing and muscular exertion, all of which augment in-

tra-abdominal pressure, will displace hand or pad, and permit the kidney to fall into its abnormal position, where it will be as firmly held by the compressing or constricting appliance, which thus defects its own subject." (Sturmdorf).

I am free to say that on the whole I believe that the operation of nephrorrhaphy and nephropexy are resorted to too frequently and with too little consideration by many surgeons. That there is a reaction in favor of more conservatism in these cases, is proven by the fact that the Boston City Hospital in the last ten years, (preceding 1904), out of a total of sixteen thousand five hundred and eighty nine operations, only seventeen were for movable kidneys. Of these seventeen cases I wish to give a brief outline of ten, the records of the other seven were not obtainable.

Please bear in mind that the date of these case reports is 1904 and were subjected to operation during the preceding decade.

CASE NO. 1.—*Sex*, female; *Occupation*, housewife; *Duration of symptoms*, seven years; *Symptoms*, beginning after confinement. Soreness in right hypochondrium. Noticed tumor. Melancholia at times. *Physical examination*, right kidney felt just below tenth rib, can be held down by hand during respiration; *Anatomical condition found at operation*, 1½ inch with respiration; *Result*, better than before operation, but not entirely relieved. Still has soreness in right hypochondrium and back. Can not do hard work. Has to wear swathe. Hurts if she lifts or reaches. General health much improved. Would not advise others to have operation.

CASE NO. 2.—*Sex*, female; *Occupation*, book-binder, sits down while working; *Duration of symptoms*, five months; *Symptoms*, pain in right hypochondrium aggravated by laughing or crying; frequent and painful micturition; *Physical examination*, mass in right lumbar region felt under ether; no anatomical cause for micturition; *Anatomical condition found at operation*, kidney seen moving with res-

piration; *Result*, "one hundred per cent better." Couldn't work more than two days at a time before operation. Now can work all the time. No pain in abdomen now, but pain across back on hard work. Feels much improved. Would have operation again under same circumstances. Has frequent and burning micturition now at intervals.

CASE NO. 3.—*Sex*, female; *Occupation*, housewife, since operation worked in bakeshop; *Duration of symptoms*, ten years; *Symptoms*, pain in the stomach and vomiting; *Physical Examination*, stomach to unmicilcus, greatly increased capacity, both kidneys palpable; *Anatomical condition found at operation*, kidney normal position, but tilted forward; *Result*, "feels like new woman." Very much improved. Has now no pain in kidney. Has pain in back when she overexerts herself or overeats. Still has stomach trouble. Has distress very often unless she diets. Can do light work as waiting in store, since trouble. Would go through operation again and would strongly advise any one else in same condition to be operated on.

CASE NO. 4.—*Sex*, female; *Occupation*, housewife; *Duration of symptoms*, thirteen years; *Symptoms*, pain in right side and "lower bowel," constantly increased by standing; *Physical examination*, mass smooth and movable, can be found beneath ribs or pushed into pelvis; *Anatomical condition found at operation*, deep pressure required to bring kidney into view; *Result*, patient had diagnosis of probable tabes in 1898. In 1902 returned to hospital complaining of abdominal pain, which rendered her unable to work. Probable recurrence.

CASE NO. 5.—*Sex*, female; *Occupation*, housewife; *Duration of symptoms*, five years; *Symptoms*, tumor at right costal border at times. Since birth of last child six months ago tumor has been "loose in abdomen;" *Physical examination*, right kidney palpable and movable on palpation; *Abdominal condition found at operation*, kidney moved freely with diaphragm; *Result*, operation gave complete relief.

Was able to attend to household duties two days after leaving hospital, and has done her work since. Last February, 1904, was operated on for abdominal tumor, and since that time has imagined that she felt something "floating around inside her abdomen." Would advise another patient to have operation.

CASE NO. 6.—*Sex*, female; *Occupation*, housewife; *Duration of symptoms*, for some time dragging sensation and indigestion, for five years movable lump in right abdomen, for twelve years neurasthenic indigestion, eructations, palpitation, soreness across abdomen; *Physical examination*, kidney felt just under anterior abdominal wall, lower end on level with umbilicus, left border in median line. Can be pushed into normal place. Felt only with patient on left side. Not felt on back; *Anatomical condition found at operation*, not given; *Result*, for two years entire relief from indigestion and bad feeling inside. Since that time indigestion has returned and pain in front of abdomen. Consulted physician, who told her the kidney had dropped down again some.

CASE NO. 7.—*Sex*, female; *Occupation*, housewife; *Duration of Symptoms*, one year; *Symptoms*, pain in right hypochondrium intermittent; constant last two weeks; *Physical examination*, indefinite, rounded mass in region of kidney, not moving on respiration; *Anatomical condition found at operation*, considerable excursion with respiration; *Result*, since married and moved away. Not seen, but said by family to have gained complete relief from operation.

CASE NO. 8.—*Sex*, female; *Occupation*, housewife; *Duration of symptoms*, five weeks; *Symptoms*, general pains, followed by severe pains in lower left abdomen, icterus, pus, temperature; *Physical examination*, spleen enlarged, mass in right lumbar region not moving on respiration; *Anatomical condition found at operation*, excursion two inches with respiration. Kidney turned so that posterior surface was found anterior,, and greater convexity internal; *Result*,

former landlady says patient still has soreness and weakness in abdomen and complains of "all gone feeling" in front where incision was first made. Also complains of soreness in back.

CASE NO. 9.—*Sex*, female; *Occupation*, housewife; *Duration of Symptoms*, five years; *Symptoms*, attacks of vomiting with pain in hypochondria, three in five months; starts in right side and radiates through abdomen, becomes unconscious every time she vomits, urine dark brown to red, with heavy red sediment, urine normal and pains cease if she keeps quiet and lies down; *Physical examination*, kidney freely movable under ether; *Anatomical condition found at operation*, kidney freely movable; *Result*, September 22, 1899, much relief from nephrorrhaphy. Operation for gall stones September 26, and discharged relieved October 19, 1899. Second operation for gall stones, discharged dead August 16, 1900. No autopsy.

CASE NO. 10.—*Sex*, female; *Occupation*, housewife; *Duration of symptoms*, two weeks; *Symptoms*, pain in hypochondrium, vomited every thing eaten for four days, pain was intense, confining her to bed, felt soft, movable body under right costal border; *Physical examination*, right kidney freely movable; *Anatomical condition found at operation*, kidney freely movable falling into abdomen as far as median line, unless raised by counter pressure on abdomen; *Results*, September 12, 1896, operated on for gall stones. Perfectly well after operation for three and one-half months, when she had an attack of gall stone colic and was operated as above and discharged. Relieved. No trace of her found.

I take it that these cases will give us some idea of the results of nephrorrhaphy. Of these ten cases selected and operated upon by different surgeons, three were cured, three improved, and four were failures. It will be noticed that two of the three cured cases were of short duration, one of one year, and one of two weeks, the third being for five

years, this one, although reported cured, still complains of "something floating around inside."

Up to April, 1902, sixty-one patients had been operated upon for movable kidney at the Presbyterian Hospital in New York—two died as result of operation, and one, two months afterward of pulmonary tuberculosis, forty-two of the remaining fifty-eight patients were personally examined or written to; fifty-two per cent were cured, thirty-six per cent were improved, and eleven per cent were failures. Many of these operations were performed by different surgeons.

Causes of failure of the operation, according to Jacobson, are as follows: *first*, the operation is performed in unsuitable cases. (a) Where the mobility of the kidney is only, in reality, a small part of the trouble, such as neurasthenia. It should be done in these cases only with the greatest caution. Even nephrectomy has failed to relieve such cases.

In dyspeptic, neurotic women approaching the menopause, the operation should be avoided altogether.

In general, enteroptosis with its consequent dyspepsia, constipation, and uterine or ovarian troubles, it will be useless to perform this operation unless the other affections are corrected. (b) In a certain proportion of movable kidneys, organic disease, cancer, tuberculosis, or hydronephrosis co-exists; *second*, nephrorrhaphy frequently fails to give permanent relief because of insufficient fixation.

Conclusions: According to different authorities from forty to eighty per cent of women have a palpable or even movable kidney.

The causes of this malady seem to be a lack of general muscular tone, anatomical peculiarities, or increase in the weight of the kidney, one or all.

The symptoms are a sensation, subjective or objective, of a mass moving from the flank into the abdomen, crises of kidney pain, a variety of nervous derangements from nervous dyspepsia to neurasthenia.

As for treatment, much may be done along prophylactic lines, directed against skeletal stigma, resulting from structural, nutritional, and functional derangements of bones, ligaments and muscles that result from infantile disease affecting these structures, such as syphilis, rickets, poliomyelitis, etc.

In a vast majority of cases, giving rise to symptoms, (fifty per cent give rise to none), operation is not indicated. For such cases palliative treatment, building up the general health as best we can, suggestions, and developing the abdominal and back muscles, is the best we can do.

Lastly, there are a few cases where the symptoms are all referable to the kidney, which, when suitably selected and subjected to an operation with perfect technique, will make a perfect recovery.

HOOKWORM CONDITIONS IN TENNESSEE.

Ninety-five out of the ninety-six counties of Tennessee are infected with hookworm disease, according to the annual report of Dr. Olin West, hookworm specialist, working under direction of the State Board of Health. Since the work was started two years ago, Dr. West and his assistants, Drs. Yancey, Breeding, Lee and Lacey, have thoroughly inspected disease in every county in the State and have found every one infected with hookworm, with the exception of that of Lewis.

In many of the counties numbers of cases have been found. In other counties there are not so many. In some counties the cases are aggravated to a great extent. In other counties the disease is just beginning to show. In all the counties, understanding the advancement of the disease, Dr. West is waging a relentless war on the infection.

A great deal of good has been accomplished during the year.

In speaking of the work, Dr. West says: "While we can

boast of specific legislation having been enacted, we feel sure that a sentiment has been created, largely as a result of our work, that will secure the passage of important public health measures at the next session of the State Legislature. Indeed, we have good reason to believe that had it not been for some unusual political complications these measures, or some of them, would have been passed at the last session."

His report, in part, follows:

COUNTIES INFECTED.

The following counties have been found to be infected since the last report:

West Tennessee—Lake, Obion, Dyer, Gibson, Lauderdale, Crockett, Tipton, Haywood, Henry, Benton, Decatur, Chester, McNairy, Hardin.

Middle Tennessee—Stewart, Houston, Humphreys, Perry, Montgomery, Robertson, Dickson, Hickman, Sumner, Williamson, Maury, Giles, Lincoln, Moore, Trousdale, Franklin.

East Tennessee—Morgan, Rhea, Sequatchie, Meigs, James, Bradley, Polk, Monroe, Cocke, Hamblen, Claiborne, Hancock, Hawkins, Sullivan, Washington.

The infection has been demonstrated in every county in the State with the single exception of Lewis.

RESULTS BY COUNTIES.

Results by counties based on microscopic examination of at least 200 rural children between the ages of 6 and 18, indiscriminately chosen:

Knox County (Yancey)—Number examined, 581; number infected, 121; 20.8 per cent.

Anderson County (Yancey)—Number examined, 212; number infected, 47; 22.17 per cent.

Sevier County (Yancey)—Number examined, 155; number infected, 28; 18 per cent.

Jefferson County (Yancey)—Number examined, 201; number infected, 36; 17.9 per cent.

Sullivan County (Yancey)—Number examined, 200; number infected, 40; 20 per cent.

White County (W. J. Breeding)—Number examined, 200; number infected, 118; 59 per cent.

Fentress County (Lansden)—Number examined, 143; number infected, 88; 50 per cent; later survey, 68 per cent.

Pickett County (Lansden)—Number examined, 186; number infected, 74; 50 per cent; later survey, 67 per cent.

Overton County (Lansden)—Number examined, 186; number infected, 74; 40 per cent; later survey, 48 per cent.

Clay County (Lansden)—Number examined, 200; number infected, 96; 48 per cent.

Warren County (Lee)—Number examined, 478; number infected, 241; 50.4 per cent.

Sequatchie County (Lacey)—Number examined, 244; number infected, 147; 60.25 per cent.

Bledsoe County (Lacey)—Number examined, 304; number infected, 223; 73.25 per cent.

Partial infection surveys have been made in the following counties: Scott, Cumberland, Putnam, Van Buren, DeKalb, Madison, Fayette, Grundy, Cannon, Bedford and Coffee.

The following shows some of the results over the State: Physicians personally interested 288; lectures to physicians 28; letters and circulars to physicians, 5,956; bulletins sent to physicians, 6,000; physicians now treating cases, 256; schools inspected, 240; families examined, 2574 (no record by two men); persons treated: By dispensaries, 572; by physicians (no record by one man), 666; personally by field men, 1,402; total number on record for year, 2,640; estimated number treated not on record, 1,200. Educating the people on sanitation—Bulletins and leaflets distributed, 55,540; persons personally visited, 45; articles furnished for publication, 120; letters to press, 110; attitude of press, generally favorable; teachers reached: by visit, 1,230; by let-

ter, 545; by bulletin or leaflet, 1,756; at institutes, 1,200; public lectures given, 248; attending (estimated), 42,898.

Expenditures: By State Board of Health, \$1,096.10.

FREE DISPENSARIES.

"In studying the work of the free dispensaries, we conclude that these dispensaries have been successful. We have not been able to report large numbers of cases treated, but the work that has been done has been thoroughly done, and we expect each case to be a living, walking advertisement for the work. The people are watching, they are seeing and are being convinced.

"In the dispensaries conducted by Dr. Breeding, aided by Dr. Lacey, every case treated was diagnosed with the aid of the microscope. Drs. Breeding and Lacey were convinced that it was the part of wisdom to have positive evidence of the correctness of diagnosis in the early dispensary work on the same basis. The microscope findings were often demonstrated by persons attending the dispensaries, this little maneuver carrying conviction in many instances.

"In the Warren County dispensaries, conducted by Dr. Lee, microscopic diagnosis was not resorted to in all cases, but the comparatively large number of second and third treatments is taken to prove that the diagnosis was not often wrong.

"These dispensaries were made possible by reason of appropriations secured from the County Courts, which meet once each quarter. All of the appropriations were secured at the sittings of the court in October, this making the opening of the dispensaries fall in late October or in November. This is a busy time with the mountaineer farmer, especially the late weeks of October, and the harvesting of the crops, oftentimes meager, but all important, reduced the attendance at the dispensaries. But the thing which most of all interfered with dispensary work was the unprecedented inclement weather, which has

continued from the opening until the present time. Individual members of all the County Courts making appropriations have expressed themselves as pleased with what has been accomplished.

"An effort will be made, when the dispensary work is discontinued in any county, to have the court continue the unexpected appropriation to enable the work of free treatment of hookworm disease to be carried on by the County Health Officer.

"The State Board of Health has expended \$1,096.70 in furthering the work of education of hookworm disease in Tennessee. This is exclusive of the amount expended for postage and stationary, an item of no small moment. We feel that this is a most generous expenditure and consider that the Board will give no stronger endorsement of the work than its willingness to set apart this proportionally large amount from their appropriations.

"The Secretary and Executive Officer of the State Board of Health and his assistants have been uniformly kind and helpful, and the Assistant Secretary desires to acknowledge his gratitude to them. The individual members of the Board have encouraged us always in the year just passed."

Looking to the eradication of hookworm in Tennessee, Dr. Olin West, Hookworm Specialist, mailed out the following letter Friday, January 19th, to physicians over the State asking their co-operation:

"More than 7,500 microscopic examinations for the diagnosis of hookworm disease were made by the State Board of Health in 1911, 3,335 of them proving positive. Many physicians made their own microscopic diagnosis and we had no record of the number of cases thus found. Intestinal parasites other than hookworm were found in these examinations nearly four thousand times. As a result of this work many persons were given treatment by their physicians that has restored to them health and the ability to work.

"We have records of nearly three thousand cases treated in 1911, 268 physicians having reported cases. We know that many physicians have treated the disease who have not reported to us.

"In the last quarter of 1911, 1,038 cases were diagnosed after microscopical examinations by the Board of Health, and 948 of these were reported treated, whereas in the last quarter of 1910 only 330 cases were diagnosed and 147 treated.

"We want the help of every doctor in the State in our work for the eradication of hookworm disease. Won't you help us by sending in at least four specimens from those in whom you suspect the infection during the present quarter? Mailing tubes will be sent you upon request and the microscopical findings will be promptly reported to you. Your help will be greatly appreciated and we will take pleasure in serving you as well as we can."

CLINICAL SOCIETY OF NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

MEETING OF JANUARY 8, 1912.

STRANGULATED HERNIA OPERATED UPON UNDER COCAINE:

—Case presented by *Dr. Robt. Brennan*. Patient was a man of 41 years of age and is single. His hernia was noticed at birth, and for sixteen years he wore a truss. At sixteen he discontinued its use, but after four years became engaged in laborious work, and had to put it on again. One week ago the hernia came down, and in spite of his efforts, he could not replace it. Three days after it came down, he began to vomit, and this continued for two days, until he entered the hospital. He had a marked mitral lesion, which suggested the desirability of cocaine anæsthesia. On cutting down, the sac enclosing the hernia was liberated, letting out bloody fluid, and a knuckle of black gut. Under

hot applications to the gut, the color became restored in about an hour, and the wound was sewed up. His pulse promptly dropped from 140 to 100 after the operation, and has remained normal since.

Dr. Morrow said he had been interested in cases of strangulated hernia, from the fact that discoloration of the gut is often due to traction upon the vessels, and that time might be saved by promptly replacing the gut in the abdominal cavity. He had demonstrated that normal gut, when constricted at the femoral ring, for a short period of time, would become black, and would regain it when shoved back into the abdomen.

THYRO-GLOSSAL CYST:—Case presented by *Dr. J. A. Bodine*: *Dr. Bodine* showed a specimen of Thyro-glossal cyst, which he had removed from a case in its entirety. The case was somewhat uncommon. He had noticed from former careful observations with *Dr. Myles*, that these cysts had a way of returning after operation, or at least leaving a suppurating condition in the neck. To obtain success, the cyst must be dissected from the base of the tongue to the thyroid gland, including the ducts. The cyst wall was thin, and nothing should be left if success was to be obtained and a cure promised.

Dr. Morrow said that he had never operated upon a thyro-glossal cyst, but had a case of branchial cyst, which came under the class of congenital malformations. This case was very difficult because the wall of the fistula, which opened into the pharynx, was adherent to the deep vessels, and it was very hard to separate them, but this was finally accomplished.

AMPUTATION OF FINGER TIP WITH REPLACEMENT AND RECOVERY OF FINGER:—Case presented by *Dr. J. A. Bodine*: *Dr. Bodine* showed a case of a little fellow, who, while working at a cloth cutting device, in a clothing shop, caught his finger tip in the machinery, cutting off the finger about half an inch from the tip. The boy was badly

frightened, and had run to the hospital, leaving the finger tip on the floor in the shop. A friend was sent after it, and returned two hours later, bringing the tip which was rather dried up, but softened after soaking in normal salt solution. The tip was put in place and bound up. The finger showed complete healing, and a round line of scar tissue, where the junction had taken place.

RESECTION OF THE POSTERIOR ROOT OF THE TRI-FACIAL NERVE: Case presented by *Dr. J. A. Bodine*: Dr. Bodine showed a case of Tri-facial neuralgia of long standing in a woman 60 years of age. She had tried injections of alcohol from time to time, but these finally failed to relieve her, and she was willing to have anything done. With the patient in a sitting position, Dr. Bodine had opened the skull in front of the ear, just in front of the zygoma, the opening being 5 c. m. in diameter, the bone removed and the brain lifted up. The tri-facial ganglion was not removed, but he went in behind it and put a hook around the root and resected it. Twenty-four hours after the operation, she was entirely free from pain, and is cured for the balance of her life. There was no particular difficulty about the operation, although it was the first he had done any of the kind, and so far as he knows was the first time it had been performed in this city. It was not removing the ganglion, but the pulling out of the sensory root from the pons varolii which rendered the area very dangerous. It is not difficult, however, for anyone trained in surgery. He believed that he had separated the sensory from the motor roots, as mastication had not been interfered with. Such cases as had been treated by this method, had been successful. At the beginning of the operation, he had torn the imddle meningeal artery, but there was no trouble checking the hemorrhage. Dr. Bodine thought that the fear of hemorrhage made cowards of many surgeons. The patient did not suffer from shock and the pulse did not go above 90. The op-

eration requires skill and judgment, as it is distinctly a one man operation from start to finish.

Dr. Keller had given this case of *Dr. Bodine's* four alcohol injections, with slight benefit. Alcohol injections usually give relief in these cases, and in his experience of fifty cases, he had had excellent results. Where relief was not obtained he thought that the lesion was further back than the injection reached. Even when a resection was contemplated, *Dr. Keller* thought it benefited the patient to precede the resection by alcohol injection.

Dr. Connor welcomed any method of resection which spared the motor roots, as a ganglion resection usually resulted in a loss of the eye.

CASE OF SALPINGITIS INFECTION FOLLOWING CONCEPTION:
—Case presented by *Dr. Morgan*: *Dr. Morgan* showed a case of a woman 31 years of age, married, with one child 11 years of age, and a history of several miscarriages. Her husband stated that she was exposed to gonorrhea, but she gave no history of inconvenience. Four weeks before admission to hospital, she called her family physician, who found her in pain and bleeding. She said she had missed one period and was afraid she was going to miscarry. Bimanual examination showed a mass posterior to the uterus and a diagnosis was made of a probable ruptured ectopic pregnancy. When seen a little later, there was a tremendous mass. On consultation she had been removed to the hospital and a laparotomy performed and a pregnant uterus found. There was nothing to indicate a sub-mucous, or an intra-mural fibroid. Further examination brought to light a tubo-ovarian cyst on the right side, and a chronic pyo-salpingitis of the left tube with the fimbriated extremity closed. The tube and ovary on the right side were removed, and the left tube also. *Dr. Morgan* was amazed that the woman was pregnant. She began to menstruate after a rest of two weeks in bed. The interesting feature was that the woman became pregnant after an infection which apparently closed both tubes.

Selected Articles

HYGIENIC AND DIETETIC TREATMENT OF ARTERIAL HYPERTENSION.*

BY ARTHUR R. ELLIOTT, M. D., PROFESSOR OF MEDICINE IN THE POST-GRADUATE MEDICAL SCHOOL, CHICAGO.

In order to obtain a clear view of the problem involved in control of high blood-pressure we must not lose sight of the fact that we are dealing with a symptom rather than a disease. We know too little about the method of its production to permit us to dogmatize. We may perhaps venture this assertion, that high blood-pressure is a reaction to some form of systemic toxemia. We recognize several different pathologic states as liable to be accompanied by this symptom. Among these are nephritis, gout, arterosclerosis, emphysema, plumbism, chronic anemia. whether the case be primarily nephrotoxic, autotoxic, or chemotoxic the blood-pressure elevation is probably produced by the circulating toxins. Certain secondary organic changes—arterial fibrosis and cardiac hypertrophy—follow as a matter of course from overfunctioning of the cardiovascular apparatus, due to the altered mechanical conditions in the circulation. This fact of etiology being conceded, it follows that the first principle of treatment is to prevent the formation and absorption of pressor toxins. Failing in this their removal becomes the next important object of attention. Before proceeding to the discussion of how best to accomplish these results we might profitably consider certain facts having important bearing on the extent to which our efforts at control should go.

One great difficulty that confronts us at the outset of treatment in any given case of high blood-pressure is in deciding whether we should not attempt to lower the blood-

*Read before Mississippi Valley Medical Association, Nashville, Tenn., Oct. 17, 1911.

pressure at all. The effects of aerial hypertension are mechanical, and compensatory adjustment soon alters the dynamics of the circulation to conform to the new status in the peripheral field. As Hare puts it, the tissues become accustomed to a new standard of pressure with which it is unwarrantable to interfere. Moreover, we do not know as yet what is the relation of arterial pressure to "efficiency in the circulation," by which term is meant a certain rate and pressure of capillary flow essential to insure adequate metabolism and a complete return of blood to the heart. That a systolic pressure of 200 mm. or over may be physiologic for this purpose seems indicated by experience. This is undoubtedly true of most cases of chronic nephritis, and perhaps also for many non-nephritic cases showing few subjective symptoms. To tamper much with the blood-pressure by active measures of treatment in such cases is almost certain to induce subjective discomfort and cardiac embarrassment. Another point it is well to bear in mind is the possibility that high blood-pressure is not of itself the cause of most of the symptoms attributed to it, but that it is only when cardiac function becomes disturbed that symptoms of importance arise. That there is some truth in this claim we may infer from the fact that reduction of blood-pressure and relief of hypertension symptoms will in certain cases result from digitalis therapy after purely vascular measures of treatment have proved wholly ineffective.

At times an elevated blood-pressure appears to be a direct result of disturbed heart function. A patient coming under observation one month ago had a systolic pressure of 160 mm., with no other symptom save a persistent soft edema about the ankles. The area of superficial cardiac dulness was somewhat enlarged, and he showed the reaction of early cardiac fatigue to Graupner's test. Two weeks medication with digitalis dissipated the edema, and

along with this improvement the blood-pressure spontaneously fell to 120 mm.

These considerations serve to point the moral that attempts to control high blood-pressure should be guided by conservatism, and the means employed should be indirect rather than direct. Even in matters of diet and hygiene it is possible to greatly overdo the thing, for by reducing too far the food intake and interfering too radically with the fixed habits of the patient we may impair his strength and reduce his circulatory efficiency.

Every patient coming under observation with a blood-pressure persistently elevated above the normal should be subjected to a thorough physical examination. This should include quantitative urine analysis, blood examination, and a careful investigation into the condition of the digestive functions. The endeavor at the outset of treatment should be to dispose of all systemic disturbing factors, especially such as may cause toxemia. The regulation of the personal hygiene of the patient should take note of all details of living that under critical inquiry appear to be unphysiologic. As these patients have to be carried along under medical supervision for long periods it is perhaps just as well not to interfere more than is strictly necessary with the individual's ordinary habits of life. In fact, unless the pressure range is excessive, or it becomes apparent that the heart is failing in its function, it is better that we do not proceed in too arbitrary a manner to rearrange the patient's habits of life and diet. Many hypertension patients do not acknowledge themselves to be individuals. Their high blood-pressure often makes them energetic and vital, and they are apt to regard a "hammer and tongs" method of reform as unwarranted. It is better to proceed with some diplomacy, depending on persuasion rather than command to gain the desired cooperation. So far as my experience would enable me to form an opinion, there is no particular class of individuals more liable than another

to this development. I encounter the symptom quite as often in dispensary as in private practice. There is no particular physical type affected. It occurs not only among the corpulent and self-indulgent, but almost as frequently also in thin, nervous, spare individuals. It is difficult in consequence of this to lay down general rules of hygiene that will be suitable to any major group of patients. Each patient must become the object of individual study, and judgment is to be formed on the merits of each case separately.

Various items of personal hygiene should be made matters for careful regulation. One of the most important of these in my estimation is smoking and other forms of tobacco consumption. The immoderate use of tobacco in any form is bad for the hypertension patient. It has seemed to me in certain instances that excessive smoking has played an important etiologic role. Be that as it may, there is no doubt in my mind that tobacco serves to aggravate the condition when once established, and whenever possible the habit should be interdicted. If complete abandonment of the practice cannot be enforced, one should at least emphasize the necessity of extreme temperance, moderating within fixed limits the amount of tobacco used.

In high blood-pressure conditions we have in the regulation of physical exercise a very important problem. The object of our care in this direction is of course the protection of the heart and cerebral circuit from overstrain. Regular out-of-door activity is essential not only for its effect in favoring a healthy tissue interchange, but no less important for its influence in maintaining a normal mental tone. It is important nevertheless to regulate it at the physiologic level for the individual. Lowsley (*American Journal of Physiology*, March 1, 1911) very clearly sets forth the effect of exercise on blood-pressure and pulse-rate. His observations indicate that exercise causes an immediate rise in the systolic blood-pressure, the maximum being attained

more quickly in those easily fatigued than in individuals better able to bear exertion. Cessation of effort is followed by a more or less rapid return to normal, and if the exercise has been moderate the pressure does not fall below normal or becomes but slightly subnormal. If, however, the exertion has been prolonged or severe there is always observed a secondary subnormal phase which in duration is proportional to the exhausting character of the exercise. Pulse-rate increases after effort and decreases rapidly after its cessation, this drop being frequently followed by a secondary rise, which is probably a reflex effect due to the low blood-pressure of the subnormal phase. This secondary increase of pulse-rate is not accompanied by a rise in blood-pressure. There is less strain upon the circulation by walking a number of miles than by sprinting one hundred yards at top speed. The subnormal phase in the healthy adult affected by the former lasts about thirty minutes whereas by the severer although shorter effort of sprinting it is about ninety minutes. It is possible to apply these observations in a practical way to regulate the activities in our hypertension cases.

The beneficial or injurious effects of any given amount of exertion may be approximately determined by observing the duration of the subnormal phase and the presence or absence of a secondary rise in pulse-rate. We should so far as we are able take the measure of each patient regarding his reaction to exertion. This may be done by giving him a stated amount of exercise to perform and then carefully charting out the reaction of blood-pressure and pulse for one hour thereafter. If a pronounced subnormal phase that endures for much more than one-half hour results, and especially if a secondary rise in pulse-rate is observed, the physiologic limit for the individual has been exceeded. By repeated observations of the kind the optimum of physical activity may be arrived at. Graupner's test, using an ergometer or modified into a stair-

climbing test, will give information of some value with regard to the cardiac and vascular reaction to work, but a better plan is to make the observation following a more usual form of exercise, such as a stated distance of walking on the level and up and down moderate inclines. In cases not severe and having good cardiac function it is not essential to be strictly guided by physiological reactions, and exhaustion is all that is needed. In more advanced cases with less cardiac reserve greater precaution to avoid cardiac reserve and greater precaution to avoid cardiac strain is necessary and the physiologic test should be employed.

For those patients who respond poorly to normal activity a good general massage each day will improve the peripheral circulation. One rule which is perhaps wise to enforce with all patients having hypertension is to rest recumbent for a longer period than has been usual with them. They should lie down for half an hour after meals, and the custom of taking an afternoon nap should be put in practice. Regular and early retiring with long hours of sleep should be the rule. A distinct advantage is gained if we can enforce occasional periods of rest in bed for our hypertension patients. A periodic week in bed on a low diet with daily massage will accomplish more for the inveterate case of high blood-pressure than almost any other measure of treatment. Instead of permitting patients of this kind to "take a holiday" away from medical guidance, subject to irregularities of diet and the danger of physical overstrain, we may far better put them to bed, securing thereby rest to the heart and relief of strain to the arteries. A "bed week" once in every six to twelve weeks according to the stage of the case will prove the greatest benefit.

Warm baths constitute a valuable measure of relief to these individuals. A warm immersion bath of fifteen to twenty minutes duration followed by cooling off and a brisk rub-down should be made part of each morning's

routine. One of the most effective means for reducing tension is sweating. Sweat baths twice or thrice a week, either in a Turkish bath or cabinet, will be found to reduce blood-pressure invariably, and will as a rule add to the patient's sense of physical well-being.

The difficulty of laying down fixed rules to govern the diet of patients with high blood-pressure is accented by the variation in type of these individuals. The stage of the disease is also of importance in diet regulation. Individualization is as important in this matter as in any other form of therapy. Careful record of the body weight should be kept. Corpulent individuals should lose moderately but gradually in weight; spare, nervous patients should not only not be reduced, but may often with advantage gain somewhat in weight. Above all, we should not carry our diet restrictions to the point of undermining the patient's general health and efficiency.

There are a few cardinal rules in the dietetics of high-pressure which are generally accepted and which with individual variations are applicable to all cases:

1. Reduction in the total quantity of food. The extent to which this is carried must of course be governed somewhat by the physical type, habits and activities of the individual. Digestive plethora is, however, the rule with these patients. They either eat too much absolutely or too much relatively to their digestive powers. In either case quantitative reduction is advisable.

2. Limitation of protein. In arranging the diet for all hypertension cases of whatsoever origin the amount of protein food should be restricted within certain limits. The average adult does not need for physiologic purposes more than 90 grammes of protein per day. In every case of hypertension the protein should be kept within this amount. In renal cases of high blood-pressure the amount ingested must be limited to what the kidneys can take care of. In advanced chronic nephritis it may be necessary to reduce

the protein ration to as low as 50 or 60 grammes. A somewhat more liberal policy may be followed in cases that are primarily vascular rather than renal in origin. This is true as well of those patients who cannot digest fats and carbohydrates well. As the extractives of meat have a certain influence in raising blood-pressure, boiled meats may be permitted in somewhat greater quantity than roasted. The great bulk of the diet should be made up of cereals, vegetables, fruits, and farinacea, but even these should be regulated on a physiologic basis not haphazard. Coffee should be excluded, and alcohol permitted only with the strictest moderation.

3. Milk diet. An exclusive milk diet is not appropriate for routine use in arterial hypertension, even when the case is one of chronic nephritis. Leaving out of the question important in individual considerations, it is poorly adapted to care for the nutritive needs of the patient. In order to supply the requisite number of calories it is necessary to give at least three quarts of milk daily. This quantity of milk represents 120 grammes of protein, which is at least one-third more than should be allowed in the average case. If milk in any form is added to a diet already including a protein ration due allowance must be made for it, otherwise excess of nitrogen will be given. Notwithstanding very valid objections to the milk diet as a routine measure, we find it at times of decided value. When the pressure range is excessive and there is reason to fear for the consequences to heart or brain, a diet composed of milk with cereal additions may exercise a very beneficial effect. In certain cases especially where there is an apparent toxic factor at work we see a certain vasomotor irritability which exposes the patient to sudden and severe accessions of pressure. Very suddenly 40 or 50 mm. may be added to a pressure already abnormally high. In nephritic cases these sudden hypersensitive crises are usually uremic in origin. In the face of such a difficulty a strict milk and farinaceous

diet, or better, even a period of starvation, may become advisable, or we may with advantage follow the suggestion of Haig and enforce for the period of the pressure wave a diet consisting solely of bread and fruit.

4. Fluid restriction. The amount of fluid drunk does not materially alter the blood-pressure so long as the heart is functioning adequately. The extent to which the fluids are to be restricted should depend on the ability of the kidneys to remove water from the system. High tension is not uniformly accompanied by active urine excretion. A patient at present under observation has a total daily excretion of 630 Cc. with a systolic blood-pressure of 245 mm. Such instances are not rare. When the urine is abundant water may be permitted freely, and when the excretion rises to 2000 Cc. or higher no restriction of fluids is needed. With a low urine output some parsimony in fluids is indicated, the amount permitted corresponding roughly with the capacity of the kidneys to remove it. When signs of cardiac insufficiency make their appearance fluid restriction should invariably be enforced. The physiologic amount under this latter circumstance may be placed at from 1000 to 1200 Cc.

5. Salt restriction. Certain care in this detail is advisable in high pressure cases. In strictly limited amounts salt will do no harm in cases with good cardiac function, and as it adds greatly to the palatability of food it may be permitted within certain limits. In excessive amount salt is a circulatory stimulant, and as it increases tissue lymph and adds to the viscosity of the blood it tends in consequence to raise blood-pressure. It is well in all cases to instruct patients to avoid the use of salt on the food after it is cooked and served. If edema, however slight, is present salt should be excluded entirely from the diet.

In closing this brief discussion of physiologic measures for the control of high blood-pressure reference should be made to the physiological treatment of these patients. As

a rule they are a highly strung, nervous type of invalid, exceedingly susceptible to suggestion. They are easily encouraged, very easily depressed. Worry and mental depression exert an unfavorable effect on the blood-pressure. It is a matter of therapeutic importance therefore to keep them hopeful and encouraged. Discouraging opinions and doubts should be withheld. Above all, if it can be possibly avoided, do not tell the patient what his blood-pressure is at the time of your routine observations, otherwise, exaggerating the significance of its fluctuations, he will follow the sphygmomanometer readings with either an elation or discouragement that will in either case do him no good.

—*The Therapeutic Gazette.*

Obituary.

DR. J. A. ROGERS, a prominent physician at Leeville, Wilson County, died suddenly on the afternoon of January 11th, ult., at 5 o'clock. He was walking from the front gate toward the door at his home when he fell and expired before medical attention could be secured. Heart trouble was the supposed cause. Dr. Rogers was 70 years old and was held in the highest esteem by the people of the section in which he lived. He was a native of Wilson County, where he had lived all his life, being a citizen of Leeville during nearly the entire period. He was a graduate of the Medical Department of the University of Nashville, and served creditably during the war between the States in the Confederate Army. He was a regular subscriber to this Journal from its initial number in 1879 to the time of his death. He is survived by his wife and several grandchildren. His death is deeply mourned as a great loss to the community in which he lived.

DR. G. C. GREENWAY died suddenly at his residence in Hot Springs, Ark., on the morning of January 20th, ult., at 2 o'clock. He was one of the oldest practitioners at Hot Springs, and had a large and appreciative clientele. He was a graduate of the University of Maryland Medical School in 1867. His wife was Miss Alice White, daughter of the late Gen. Addison White, of Huntsville, Ala. Courteous, genial, kind, strictly ethical in his whole professional career, universally esteemed by his acquaintances professional and non-professional, he was a true physician, a gentleman of the highest type. He was a warm friend and regular patron of this Journal for many years past.

Editorial.

"AS OTHERS SEE US."

So many most agreeable and gratifying expressions having been received, together with recent renewals of subscription, that we cannot forego the pleasure, and we hope, pardonable pride, of placing a few extracts before our many readers, thus showing to some extent our sincere appreciation and gratitude. They are as follows:

"I have been a subscriber to *The Southern Practitioner* ever since it has been published." Your fraternally, M. P. BOYD, Wildersville, Tenn.

"I trust, Doctor, that we may live—that I may pay you many times more. This is the twenty-third year that I have had the pleasure of being a subscriber." Most cordially, DOUGLAS HAYES, Tracy City, Tenn.

"Please find enclosed \$1.00, for the twenty-eighth time. Let *S. P.* come on." Yours respectfully, R. W. SKIPPER, M. D., Lovelady, Tex.

"I can't do without the *Practitioner*." J. A. ROGERS, Leesville, Tenn.

"I am certainly rejoicing at the great success you have, and are making with the journal, and hope you may continue in your good work." R. M. KIMBROUGH, Harriman, Tenn.

"I have practiced medicine over 50 years, and over half that time have been a subscriber to your journal." JOHN M. DUNNE, Richmond, Ark.

"I like your journal very much, as the articles are along practical

lines and theories are held in reserve." W. T. MARRS, Peoria Heights, Ill.

"It would be next to impossible for me to practice my profession without the aid of the *Practitioner*. Long live the editor." Very sincerely, J. G. BUTLER, Danford, Tenn.

"I have been with you a long time, but cannot keep it up much longer, I guess, as Feb. 14th I will be 85 years old. Long life to you and your journal." Fraternally yours, N. T. REEVES, Longstreet, La.

"I wish to say that I have derived during the past not only much pleasure, but much of practical benefit from your journal. What we want is something practical that helps to meet the wants of our daily work. As Montaigne says, 'Theory without practice is as valueless as a last year's bird nest;' I have but little patience with 'nihilistic medicine.'" Cordially yours, E. H. SHOLL, Birmingham, Ala.

"I sincerely wish you long life, prosperity and good health. I know the journal will be all right as long as you live." I am, very respectfully, your friend, W. J. BUNCH, M. D., Hot Springs, Ark. (A subscriber for 30 years.—*Ed. S. P.*)

"I take three other journals, but always read yours first—advertisements and all." Respectfully, W. J. LILES, Pegram, Tenn.

"Don't think I have missed a copy since February, 1885, and hope to read it as much longer." Yours, etc., G. M. COSTON, Seminole, Tex.

"I want to keep the journal coming." Yours fraternally, etc., J. M. TOWNES, M. D., Joshua, Texas. (A subscriber for over 25 years.—*Ed. S. P.*)

"Enclosed please find Money Order for which you will continue your most excellent journal." Respectfully, W. R. GRISSOM, Columbia, Ky. (A subscriber for more than 25 years.—*Ed. S. P.*)

"I like very much to read the *Southern Practitioner*, so continue to send it on to me." Sincerely your friend, R. Y. RUDICIL, Summer-ville, Ga.

"I want your journal to keep coming, as there are many hints in each number helpful to the busy doctor." Yours fraternally, C. V. STEPHENSON, M. D., Centreville, Tenn.

"I like the journal very much, and get many useful hints that are most helpful to me." Sincerely your friend, G. W. PIPER, M. D., Alto, Tenn.

"My father, Dr. Clary, who is in feeble health, over 80 years old, wishes me to say to you 'that he has derived great benefit from its pages during the past years,' and wishes me to thank you." Respectfully, MISS EVA CLARY, Bellbuckle, Tenn.

"May your shadow never grow less, and your journal continue its

good work." T. A. WILLIAMS, Troy, Miss. (A subscriber for over 30 years.—*Ed. S. P.*)

"I regard it as the best medical journal published in the South."
Very truly yours, T. B. AMISS, M. D., Luray, Va.

DEAR DOCTOR: The December number of your esteemed publication has just come to hand and we notice that this number completes the close of your thirty-third volume. The editorial retrospect is full of interest and we offer you our congratulations on having completed so many years of useful work in the field of medical publications. We particularly commend the typographical make-up of the December issue. The new type and the better quality paper are exceedingly nice and we hope that all of your subscribers and advertisers will notice the decided improvement in the dress of the Journal.

Trusting that 1912 will have good things in store for you, and with our kindest regards, we are, Very truly yours—ALBERT E. STRATTON, New York, N. Y.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

DYSMENORRHOEA: In the *Louisville Med. Monthly*, Jan., 1912, we find the following: "It is astonishing the number of young ladies there are who suffer untold agonies at each monthly menstrual epoch; to one who is not in general practice, and hence not consulted relatively to these cases, it is almost unbelievable.

"But the most astonishing thing is the great number of cases of this trouble that do not consult the family physician, because of the fact that some other case has been treated for a long time without relief, and the fact is known to all her lady friends who are similarly afflicted.

"It is not the patient's fault in the great majority of cases, that

she is not relieved; true there are instances where surgical interference alone will afford relief, and unless the condition is unbearable, or almost so, many of them will not submit to the last named procedure, but the vast majority of these cases may be greatly relieved, or cured by the proper use of remedial agencies if persisted in for a sufficient length of time.

"The report of a case will suffice to bring out the thought. A Miss R—— had suffered, as she expressed it, "The agonies of the condemned" every three weeks since she was fourteen years old—she was twenty-four years old at this time. She had tried big dose of Allopathy; Small dose Homeopathy, by the Hygienic method (whatever that is) and lastly by an Osteopath. None gave more than temporary relief.

"When we made our first visit it was to give her a hypodermic of morphia and atropia; the mother stating that "That is the only thing that has ever done her a bit of good." She was wildly throwing herself from side to side of the bed; pulling her hair and screaming; she paid no attention to the surroundings; did not know of our presence. We gave the hypo quickly and left, telling the mother that we thought the condition could be cured if she would have the daughter take treatment in the interim between the epochs. We gave her treatment and suggested that it should be continued for three months; and if she began to suffer pains as menstruation approached we ordered, teaspoonful doses of Hayden's Viburnum Compound to be given in hot water every fifteen minutes until relieved of the pain. She passed three periods while taking this treatment in comparative ease (she did not have to go to bed as heretofore).

She decided to visit an eastern State where she remained for several months and while there she suffered no pain whatever when menstruating. Upon returning to her home the painful menstruation was again experienced, when she, of her own accord, began taking the "H. V. C." beginning a few days before each period, three or four doses daily and oftener as she approached the time. She has been doing this for several months and she claims that her menstrual epochs are no more painful now than most other ladies of her acquaintance. She is sure "H. V. C." is what did it, and no amount of argument can convince her that she is wrong."

FUNCTIONAL HEART DISEASES including tachycardia, palpitation, arrhythmia and the conditions resulting from the use of coffee and tobacco, are promptly controlled and corrected by the use of Cactina Pillets. Safe and free from all ill effects, the efficiency of Cactina is shown in the relief and benefit it affords.

PREVALENT DISEASES:—Each change of season brings with it, its diseases seemingly peculiar to the time.

Summer with its Intestinal Disorders, Sunburn, Insect Bites, Ivy Poisoning, etc.

Fall presents for the attention of the physician, its Typhoid cases, and Winter and early Spring, its regular quota of Pneumonic, Bronchial, Throat and other chest conditions.

At this season, when Pneumonia and Bronchitis demand the call of the physician, literature presenting the experience of fellow practitioners, in the successful handling of these cases, would seem most apropos.

The Bloodless Phlebotomist for January reflects the experience of many physicians upon this timely subject.

Dr. Charles Buck of Cincinnati presents his experience in handling cases of Pneumonia, also relates some facts in the treatment of Lumbarago, which might also be considered as an affliction prominently manifesting itself at this season.

"Broncho-Pneumonia" with supportive as well local treatment in all its details, is the subject of the paper of F. A. Kautz, also of Cincinnati.

Dr. E. Clinton Murray, of Houston, Texas, relates his experience and treatment in a case of Pneumonia in an eighteen months old baby, and Dr. J. C. Klippinger, of Independence, Kansas, presents a "Different Technique in Pneumonia," which is decidedly original. In abstract his method is to apply the local dressing in a manner which gives the intercostal muscles a chance to functionate without restriction from bandages. This symposium is closed with a paper from Dr. W. A. Radue, of Union Hill, N. J., upon "Acute Pleurisy and a Successful Abortive Treatment."

Besides the papers referred to, upon the subject of Chest and Throat diseases, much additional information is given. The one in particular we would have you note is the "Rational Influence of Hot Applications" by that well-known Therapeutist Dr. Finley Ellingwood, of Chicago, Ill.

A postal card addressed to the *Bloodless Phlebotomist*, No. 57 Laight Street, New York, will bring you a copy of the January issue. Be sure and send for it.

AS TO EUGENICS:—Recent investigations in eugenics show that heredity is a much more important factor than environment as regards social conditions—in fact, that in most cases heredity is what makes the environment. This is confirmed by the practice of the insurance companies which attach the chief importance to the hereditary char-

acteristics of an individual. If this position is sound, education and distribution can only palliate the evils and delay fundamental changes. As Professor Karl Pearson says: "You cannot change the leopard's spots, and you cannot change bad stock to good; you may dilute it, possibly spread it over a large area, spoiling good stock, but until it ceases to multiply it will not cease to be."

Intelligent foreigners, like Bourget, H. G. Wells, and LeBon, are continually surprised that Americans pay so little regard to these matters. Already our neighbor to the north has become much more strict as to those she admits than we are; and, in fact, the Dominion is now rejecting at the border many whom we have admitted. And in our own practice we are not very logical, for we are much more stringent in regulations as to importing cattle, sheep, hogs, dogs, and horses than we are as to human beings. The English sparrow and the gypsy moth were not considered dangerous when first imported, but by their multiplication has done serious damage. The history of the Jukes family of New York State shows how much harm can be done by immigration of a single pair of defectives.

The foregoing is not intended to be a pessimistic wail. Our people are successful in part because they are optimistic, and in general they have little use for prophets of evil. Nor has the writer forgotten for a moment either what the country owes to past immigration, or that much of the present immigration is desirable and valuable.

WINTER COLDS:—There is nothing that will remove a tendency to colds (nasal catarrhs, bronchitis, laryngitis) more quickly and satisfactorily than a course of treatment with Gray's Glycerine Tonic Comp. Its effect is not only to promote reconstructive metabolism and thus enable the whole body to better withstand disease, but in addition, it imparts a local effect to the respiratory structures that unquestionably increase the local resistance to bacterial invasion. One thing is certain, cases of the ordinary respiratory diseases not infrequently prove intractable to all treatment until Gray's Glycerine Tonic Comp. is administered. Experience has proven this, and there are countless physicians who use this dependable tonic exclusively for clearing up their cases of pharyngitis, laryngitis, bronchitis and allied conditions.

THE ARREST OF CHRONIC BRONCHIAL AFFECTIONS:—The arrest of bronchial inflammations which have taken on a chronic character, and which are gradually stealing from the tissues their normal resistance, is a matter of large importance, particularly so when it is

remembered that it is but a short drift from chronic bronchial disorders to tuberculosis.

The longer such states exist, the better is the soil prepared for a tuberculous infection. It is easier and a far better practice to overcome the bronchial condition, and thus prevent a graver process, than it would be to manage the latter once it seized upon the weakened tissues.

Owing to its large value as a tissue nutrient and prompter of bodily resistance, NUTROMUL (Brown's Cotton Seed Oil Emulsion), is being widely employed for the purpose of overcoming chronic bronchial conditions, and with the most gratifying results. Under its use, the harassing cough stops, the bronchial mucosa approaches normal, and the patient takes on weight and strength. Cotton seed oil is proving its value as a nutrient and general reconstructive. The oil in NUTROMUL has been enhanced in therapeutic properties by the addition of the hypophosphites of lime, soda, and manganese. A sample bottle may be had by addressing a postal card to Nottoc Laboratory, Atlanta, Ga.

THE POST-TYPHOID TONIC:—It is usually at this season of the year that Typhoid Fever exhibits its maximum incidence, especially in the larger cities. One probable reason for this is the return of the army of families to city homes from the many more or less unsanitary summer resorts in country districts during the stage of incubation, and the subsequent development of the characteristic symptoms of the disease. As every physician realizes, the systemic poisoning is usually profound and the duration of infection is such that the organism is almost always distinctly depreciated and devitalized after the four, five or six weeks febrile period. This condition of general systemic depression at the beginning of convalescence certainly indicates the necessity of reconstructive measures. As soon as it is safe to gradually increase the patient's dietary, it is also wise to commence tonic and hematinic treatment. Care must be taken, however, to avoid derangement of the digestion, and for this reason, Pepto-Mangan (Gude) is especially indicated as the most efficient, readily tolerable and generally efficient reconstructive and hematic. The organic combination of the peptonates of iron and manganese never creates aversion, destroys the appetite nor causes gastro-intestinal irritation. Through its regular use Typhoid Convalescence is promoted and distinctly hastened.

SYRGOL, an oxyalbuminate of silver, the profession has a highly effective germicidal agent, especially adapted for use in gonorrhea, and yet one whose cost is small. SYRGOL is destructive to gonococci in solutions as weak as one-fourth or one-half of one per cent. It is un-irritating and may be prescribed with every assurance that its action will be favorable. Before its introduction to the American profession, SYRGOL was subjected to the most searching tests in continental hospitals and clinics. Under its use, urethral discharge promptly moderates, the urine clears up, and complications need scarcely be reckoned with. Taking into consideration its undoubted merit as a gonococcicide and its small cost—since it is active in weak solutions—it may be said of SYRGOL that it has no superior for use in gonorrheal disease. It is to be hoped that the American profession will try it out thoroughly.

SYRGOL is prepared in the laboratory of the A. G. vorm. B. Siegfried, of Zofingen, Switzerland, and is being introduced into America by Mr. Julius Schmid, Astoria, New York, who will be glad to supply American physicians with a liberal quantity sufficient to test its merit. SYRGOL is carried in stock by all wholesale druggists.

THE APPETITE IN TUBERCULOSIS:—In view of the fact that hyper-nutrition, or so-called forced feeding, constitutes one of the important indications in the treatment of many cases of tuberculosis, more than ordinary attention must always be devoted to maintaining the appetite. Unfortunately, many of these patients have an aversion to the very foods which are best adapted for repairing and resisting the ravages of the disease. It is here that Gray's Glycerine Tonic Comp. serves one of its most important purposes, by reason of its notable capacity to awaken a deficient appetite in a perfectly natural manner. It not only possesses the desirable feature of great palatability but through its tonic properties, it never fails to impart just the right tone to the digestive organs. Thus the effects are so much more permanent and far reaching than are obtained from ordinary stomachics, that not only are larger quantities of nourishment freely taken by the patient, but a correspondingly increased amount finds its way to the remote tissues.

SENSIBLE TO THE PROPRIETY of each practitioner having an intimate acquaintance with the composition of all such agents as he employs, it is the policy of the manufacturers to submit the formula of Glyco-Heroin (Smith) as often as appears seemly.

Despite the frequency with which the formula and dosage of the preparation have been placed before members of the medical profes-

sion, there is, we believe, some justification for offering the information in a form suitable for easy preservation and convenient reference.

Each teaspoonful represents: Heroin, one-sixteenth grain; white pine bark, $3\frac{1}{2}$ grains; ammon hypophos., 3 grains; balsam tolu, $\frac{1}{4}$ grain; hyoscyamus, 1 grain; glycerine, Q. S. The adult dose is one teaspoonful repeated every two hours or at longer intervals as the case may require. Children of ten or more years, from a quarter to a half teaspoonful; children of three or more years, five to ten drops.

The long and widespread use of Glyco-Heroin (Smith) by the most discerning in the treatment of Asthma, Bronchitis, Cough, Laryngitis, Phthisis and Pneumonia is an impressive affirmation of its exceptional value in such affections.

AN IDEAL LAXATIVE is one that does not gripe nor give rise to reactionary constipation. Such is Prunoids, the most pleasant and reliable remedy at the command of the profession for the effectual regulation of the bowels.

RIDING HIGH IN THE PROFESSION'S FAVOR:—A calming agent that is riding high in the profession's favor is PASADYNE, or as it was formerly known, Daniel's Concentrated Tincture of *Passiflora Incarnata*.

For a third of a century Daniel's *Passiflora* enjoyed a most extensive employment as a calmative, and it was only to defend themselves from piratical firms, making spurious *Passiflora* preparations, that the distinctive name of PASADYNE was adopted.

PASADYNE is just exactly what Daniel's *Passiflora Incarnata* was for many years—the most effective and safest calming and soporific agent available. Particularly in the case of hysterical women is PASADYNE valuable, for it is free from disagreeable effects and no fear attaches that the formation of a habit will follow its use. It is unusually potent, and physicians employing it for the first time need have no hesitancy; they will be gratified with the results it will produce. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

HOPE FOR TUBERCULOSIS PATIENTS:—When demonstrable lesions of tuberculosis show the steady progress being made by the infection, the physician owes it to his patient as well as to himself, to put at the unfortunate one's command whatever advantages may be open to him. Right living, sleeping in the open and the choice of a proper dietary, coupled with such drug therapy as may be indicated, offer the most hope to the tubercular patient who is not in position to

seek another climate and lung specialists. The indications for drugs are met by Cord. Ext. Ol. Morrhuae Comp. (Hagee), for in it are properties well calculated to soothe the irritated mucosae, making the cough more bearable and maintain strength and resistance of the hard pressed tissues. Cord. Ext. Ol. Morrhuae Comp. (Hagee) possesses the added advantage of not disturbing nutritional processes, as do so many agents of its class, rendering them a hindrance instead of an aid.

NEUROTIC ANOREXIA:—While loss of appetite and nausea are usually symptoms of a host of diverse pathological conditions, they sometimes constitute a disease in themselves—a kind of neurosis. In these cases the physician will find Gray's Glycerine Tonic Comp. of almost specific value for restoring the impaired appetite. It is not only agreeable to take, but produces its benefits at once in such a natural way that before the patient realizes it, the normal amount of food is being taken. Its efficacy in these neurotic cases makes Gray's Glycerine Tonic Comp. exceedingly useful in relieving the severe nausea that often occurs in early pregnancy.

THE RESORPTION OF INFLAMMATORY EXUDATES:—The resorption of inflammatory exudates, such as those frequently following acute pleuritis, is accelerated by the administration of IDONEEN (Curtis). It will be found that IDONEEN (Curtis) for this purpose is more effective than the iodide of potassium, for its contained iodine (three per cent) by reason of the ease with which it dissociates itself, thus permitting the most powerful of iodine effects, exerts an influence far in excess of what would be expected of this percentage. In practice, IDONEEN (Curtis) is from fifteen to thirty times more active in iodine properties than other agents containing a similar percentage of the element. IDONEEN (Curtis) will be found to influence all inflammatory exudates, aiding markedly in their resorption.

A sample bottle of IDONEEN with literature, may be had by addressing The Idoneen Chemical Co., Cleveland, Ohio.

EDITORIAL CHANGE:—Dr. Eugene Rosamond retires from the editorial management of the *Memphis Medical Monthly*, on account of increasing demands on his time for professional work and continuous illness in his home. He is succeeded by Dr. J. L. Andrews, Professor of Obstetrics in the Memphis Hospital Medical College, who served several years as President of the Memphis Board of Health. He is well equipped with both technical and practical knowledge in the management and control of medical matters, and we cordially welcome him to a new and wider field of usefulness in the editorial sanctum.

"MODERN DIAGNOSTIC METHODS" is the title of a most excellent little pamphlet issued by The Fellow's Hyphosphites Co., No. 69 Christopher St., New York City. Write to them for a copy and you will receive a condensed amount of the latest developments in diagnostic procedures. Some of the important features are Examination of Feces, Sputum Examination, Transudates and Exudates, Conjunctional Secretions, The Opsonic Index, The Widal and Wassermann Reaction, Blood Pressure, Local Tuberculin Reaction, Leucocytosis, and a Diet Table for Tubercular patients. The information contained will be of value to anyone engaged in the practice of medicine.

ATONIC INDIGESTION demands the most vigorous tonic treatment available. For many years, Seng has held a unique place as a gastro-intestinal tonic, and under its use the most far reaching benefits are obtainable in all functional diseases of the stomach and intestines.

SOME IDEA of the war being waged against tuberculosis may be had from the fact that \$14,500,000 was spent in this country last year in that way. Mankind has raised the black flag against the white plague.

Selections

ALCOHOL FOR HAND DISINFECTION:—Techumburg, in the *Deutsche Medizinische Wochenschrift*, says that washing the hands with strong alcohol is the most effective means of removing all infection and rendering any bacteria innocuous. He says that 200c. cm. of alcohol applied with a pledge of cotton-wool are sufficient to disinfect the hands to the extent of 99 per cent. or more of all bacteria present. Ordinary methylated spirit is quite effective. From experiments in the medical department of the Prussian Ministry of the War it appears that washing with soap and water combined with even prolonged scrubbing with a brush does not remove the microbes, the soap softening the skin and making the bacteria more adherent.

Alcohol, on the other hand, by hardening the skin, causes the bacteria to become rapidly detached. To secure proper disinfection with alcohol the preliminary use of soap and water must be dispensed with, the reasons given being that the residual moisture, even after drying, dilutes the alcohol, and further that the softening of the skin by water causes it to contract too strongly when the alcohol is applied, and by rendering it rough and scaly encourages the transference of bacteria from the surgeon's hands to the wound. Inasmuch, however, as the wearing of gloves for operations has been now so generally adopted, disinfection of the hands has not the same importance that it once possessed for the success of aseptic surgery.

OIL OF CAMPHOR IN PURULENT PERITONITIS:—Notwithstanding the great progress which modern surgery has made in the treatment of abdominal disease and the prophylaxis of peritoneal infection, purulent peritonitis remains, when once established, a very deadly malady. It is especially when acute disease of the vermiform appendix has been treated with insufficient promptness that this fatal complication remains familiar to the surgeon. Hence suggestions are heard from time to time urging the use of chemical agents, as well as saline irrigation and flushing of the peritoneum, which so often proves insufficient. Dr. Krecke, of Munich, recommends oil of camphor for this purpose and claims excellent results. He treated with complete success eleven cases of acute general purulent peritonitis, all resulting from perforation of a sloughing appendix. The time which elapsed between the development of peritonitis and the application of oil of camphor to the peritoneal cavity ranged from eight to eighty hours; the age of the patients from ten months to seventy years. The abdominal cavity was quickly opened, the appendix amputated, the pus wiped away, and then 100Cc. of a one-per-cent steril-

ized solution of oil of camphor was poured into the peritoneal cavity. It was carefully distributed over the whole area of the peritoneum by means of gauze sponges, etc. Then the abdominal cavity was closed and a rubber tube holding a strip of gauze placed in the wound.

Dr. Krecke advocates the use of oil of camphor as a prophylactic measure in all abdominal sections where the peritoneum is already infected. He read his report on the treatment of his eleven cases at a meeting of a medical society in Munich last winter. In the discussion which followed, Dr. Schlafli stated that very strong solutions are in use at Basle. Professor von Herff introduced from 30 to 50 Cc. of 10-per-cent solutions of oil of camphor into the peritoneum in 53 cases where the peritoneum was infected before operation. All but one case recovered. Dr. O. Burckhardt has proved that streptococcal infection of the peritoneum in white mice after injection of oil of camphor seemed to be completely neutralized, although other infected mice not treated with the oil died rapidly with all the symptoms of fulminating peritonitis.—*British Medical Journal*, Sept. 30, 1911.

THE USE OF TINCTURE OF IODIN IN SURGERY: Dr. W. Champeaux (*Jour. de Pratique*, Nov. 17, 1911) emphasizes the importance of the prophylactic application of tincture of iodine in military surgery for the protection of unclean wounds. It must be applied to all corners and recesses of the wound as well as to the surrounding parts. Even extensive injuries frequently heal with other superficial loss of substance. On the other hand, the author does not favor the use of iodine for suppurating wounds or abscesses, because it does not penetrate sufficiently deeply to exert an antiseptic effect, and only irritates. Later, however, when the purulent discharge has ceased it may be utilized to advantage for its stimulating and cicatrizing action.

THE BEST RECONSTRUCTIVE
PHILLIP'S
PHOSPHO-MURIATE of QUININE
(Soluble Phosphates with Muriate of Quinine, Iron and Strychnia)
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EDITOR AND PROPRIETOR

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Original Communications.

A PLEA FOR THOROUGH SYSTEMATIC STUDY OF MATERIA MEDICA AND THERAPEUTICS.

FINLEY ELLINGWOOD, M. D., EDITOR OF ELLINGWOOD'S THERAPEUTIST, CHICAGO, ILLINOIS.

It is a generally accepted fact among those who pay any attention to the development of the study of the curriculum demanded of medical students, that there is altogether too great neglect, at the present time, of the study of *Materia Medica*, and that the study that is demanded is cursory, desultory and almost entirely devoid of attraction to the students.

The physicians themselves, being asked to take an intro-

spective view of their own knowledge of *Materia Medica*, if they are honest, in the majority of the cases, are overwhelmed with their own ignorance of the detail of specific or exact action of drugs. Many of them blame their alma mater, and those that should lead in medical knowledge, for this ignorance, but I am inclined to think the individual himself is much to blame as well.

The total profession has made marvelous advancement in the last three or four decades in the study of bacteriology, pathology and microscopy in the development of laboratory methods of drug study, and in the study of Preventative Medicine and of Surgery, but in doing this the individual has spent so little time upon the all-important subject of *Materia Medica* and Therapeutics that he actually, in many particulars, knows less of drug action today than he did thirty years ago. I say this advisedly and regretfully, but the individual physician is not as much a student of *Materia Medica* today as he was in the past, because the study then of *Materia Medica* was accounted the most important branch. It was not overshadowed by surgery and the so-called scientific branches. To the physician, then, the all important knowledge was to know *what medicine* to give to his patient when ill that would *cure*.

The study of this subject is difficult. It demands concentration; it demands persistency, and unless applied to the immediate needs of the patient, unless we can make immediate application of the knowledge acquired, it is startlingly devoid of interest. It is not exact, and every student delights in exactness. But why is it not exact? It is because our total knowledge of the subject in the first place is imperfect; secondly, the study is not conducted in systematic, precise, scientific lines. It is not properly classified or arranged; the study is not made consistent with an exact principle of drug action.

My object in writing this paper for this journal is to attract the attention of the readers to a renewed study of the

action of drugs, to the study of drugs in line with a principle at once exact, rational and attractive, and to encourage persistence in this study in these lines, until the student shall have acquired a knowledge, and an experience that in itself will stimulate him to a most enjoyable persistence in the study, and will enable him to say that there is in this study when correctly conducted, a fascination that no other study possesses.

I have been trying to teach for many years the following facts: That the reason disease is not cured is because *we have not the knowledge of drug action* necessary with which to cure it, or conversely:

That failure to cure disease is due to lack of knowledge.

That disease will ultimately be subdued, in whole or in part, by remedial measures.

That the study of the clinical action of the single drug *is the only true method* of drug study.

That each acts directly and invariably upon one or more exact conditions of disease, and, being so studied and known, an exact reliable knowledge of drug action is obtained.

That when this knowledge is perfected we will not only prescribe for known conditions of disease with immediate success but we can prescribe with equal success for conditions we have not previously met.

We begin our study then with a perfect analytical study of each disease in order to determine those conditions which are involved, in the patient we are studying at this time.

We determine a knowledge of these conditions, and an ability to recognize them whenever we find them, in whatever disease they may occur. We then determine what single remedy will always meet each one of these conditions and correct it. Here is the whole thing in a nut shell, and really this is all there is to it, as this includes a thorough knowledge of the remedies, also, with reference to their action upon exact conditions, as stated above.

I trust each reader will read and re-read these statements until he has them clearly impressed upon his mind, and will weigh them fully with reference to his own methods of studying the action of drugs, that he may compare the beauty of this method when completed, with any other known method.

It must be accepted at once that *this is the only correct method of drug study*. If we prescribe compounds because the manufacturer has advised them for certain conditions, we acquire no precise knowledge of the action of the constituents of that compound, and our prescribing is haphazard, uncertain and largely guess work. If we should by close study know the invariable therapeutic properties of each one of the constituents of that compound, we are enabled to determine whether the total compound is applicable in the case required, or whether one or two of its constituents would not work even better, or whether it is not totally inapplicable.

But if we understand drug action as above specified we will seldom, if ever, find an excuse for prescribing a compound, especially one prepared for general conditions, but we will invariably find demands in the condition present in the patient we are prescribing for, for one, two or three single remedies of which we feel confident, and will thus promptly make a perfect adjustment to the case in hand.

This is the course we adopt in every patient, and this is the course we will adopt when we have learned our drugs, and studied specific conditions as above suggested, and when we adopt this course, the results obtained will be so satisfactory, the observations made will be so rational and consistent, and the confidence we will acquire in the knowledge we have so obtained will be so much in advance of any knowledge previously acquired that the real fascination of this method will impress itself upon us, and in the future we will find ourselves willing students of the specific method of drug application.

Applying this method to the study of well known drugs, every student is surprised at the amount of knowledge thus obtained, concerning the action of some very common remedies—knowledge of actions he had no idea could be present in that drug, materially broadening the field of the drug and increasing its value to the prescriber, in some cases a thousand fold.

Furthermore, those who have been developing this method have made observations of a great many drugs that are seldom mentioned by the principal medical journals, or prescribed by the profession at large, and which are but little known, or are spoken disparagingly of by the Committee on Pharmacy and Chemistry of the A. M. A., but which possess values when studied in this line, actually superior to very many drugs upon which volumes have been written, as standard drugs, and as those which could not be done without.

Many of the readers of this journal have learned something in an empirical or a general way concerning the action of digitalis or aconite, strophanthus, or quinine, ergot, nux vomica, ipecac, gelsemium, turpentine, or jaborandi, as common remedies, but it is certain that studying these remedies from a specific standpoint, we have an entirely different study, and one which brings out beauties not before anticipated. Added to this, every individual should study from this standpoint echinacea, baptisia, berberis, hamamelis, viburnum, mitchella, collinsonia, dioscorea, colocynth, iris, chionanthus, podophyllum, sanguinaria, asclepias, sticta, euphrasia, lobelia, apocynum, cactus, crataegus, calabar bean, pulsatilla, hyoscyamus, rhus tox and perhaps one hundred and fifty others that I could mention, and he would be surprised beyond measure at the knowledge that would develop, and in the ability he would have in the knowledge acquired, to cope with disease in a satisfactory manner, far exceeding anything he had ever hoped for or known.

It is to encourage a study, as I have said, in those lines, of both the old and the new *Materia Medica*, that I am writing this paper. It is to disparage the common use of compounds and general pharmaceuticals, used with the hope only that they will cure the conditions for which they are prescribed when a *knowledge* of exact drug action will enable the prescriber to absolutely *know*, without doubt, what will cure his patient, will make him able to cure the condition with positiveness and assurance, thus establishing the confidence of his patrons, in his ability, first; and secondly, which is indeed most important, to establish their confidence in the fact that disease *can be cured* with the measures accessible to the physician.

Ignorance of drug action, or doubt—therapeutic nihilism—has directly undermined the confidence of the people, until the drugless methods of cure are now sought for and adopted by at least thirty per cent of the population of the United States, until the surgeon is in demand, to any great extent. Faith in these drugless methods cannot endure; they are auxiliary only. Let us at once re-establish the faith of the masses in earnest drug action.

While I thus urge this method upon the individual physician, this knowledge cannot be acquired at once; to become an efficient prescriber one must be drilled in this study through a long period. I think it is necessary also that he forget much of the desultory knowledge, many of the unsystematic empirical facts he has previously known.

To have this method properly woven in with the web and woof of his total education, it should be begun with his first day's teaching in college, and should be continued with every day's instruction during the entire course. It is a deplorable fact that so little *Materia Medica* and Therapeutics are systematically, clinically, and thus practically taught, in any of the colleges, and I fear there will not be much improvement in this course until the individual prac-

titioner, and the profession as a body, *persistently insist upon* a more thorough teaching of this all-important branch.

I would be gratified, indeed, and I believe it would result in a most valuable discussion, if the reader of this paper would express freely his own opinions on this matter through the pages of this journal. All sides of the subject should be presented.

DUODENO-CHOLANGITIS—CATARRHAL JAUNDICE.

BY DEERING J. ROBERTS, M. D., OF NASHVILLE, TENN.

It has not been so very many years since that jaundice was regarded as a distinct entity; the advances in medical progress about the middle of the nineteenth century demonstrating that it was but a symptom of a number of very variable pathological conditions, varying from slight functional disturbance to serious and in some instances inevitably fatal organic lesion, even the more serious structural pathology differing as materially in character. The almost sole symptom in some cases of catarrhal jaundice being in many instances a marked and characteristic feature of far more serious conditions.

Icterus—from the Greek, or jaundice from the French, *jaunesse*—yellow, presenting so striking a change in the appearance of an individual, by reason of the pale lemon color of the external cutaneous covering, its deep yellow or orange hue, or its dark-greenish or bronzed tint, as to readily attract the attention of the patient's friends or himself. The discoloration is not limited to the skin, and is quite marked on the conjunctival covering of the sclera, and is apparent on the mucous membrane of the mouth by opening the mouth widely and putting it on the stretch or by pressing on it with a glass spatula or microscope slide. The discoloration is more marked in those fair of complexion, however in brunettes or even the darker colored African, it

can usually be readily seen on the conjunctiva, or made apparent on the buccal lining as suggested.

Any obstruction to the discharge of the bile into the intestine, damming it back into the biliary passages, will result in a reabsorption of the bile, thereby staining the tissues of the body. In catarrhal jaundice, or duodenal cholangitis, the mucosa lining the *ductus communis*, is swollen by the inflammatory process, which commencing as a rule in the duodenum, may extend to the cystic or even the hepatic ducts, that portion of the common duct lying within the intestinal wall is more frequently and more deeply involved; furthermore, the outlet of the common duct with its more restricted lumen, is the most frequent site of the obstruction. Even after the inflammatory swelling subsides, the obstruction may further persist by reason of a plug of bile-stained mucus blocking the orifice or lumen of the duct, or by an accumulation of like material in the ampulla, thus protracting the duration of the most striking clinical feature long after the inflammatory lesion has subsided in both intestine and duct. In addition, the formation of connective tissue or organized inflammatory exudate, due to the irritation of the retained bile, may cause the condition to become chronic, possibly permanent, followed by atrophy of the liver cells and hepatic cirrhosis, Suppuration, however, is rare.

Among the more important diseases presenting jaundice as a symptom may be mentioned the closing of the duct by a biliary concretion, the pressure resulting from a malignant or benign tumor, or a hepatic abscess, A not unusual condition is *icterus menstrualis*, occurring at the menstrual period almost regularly in some patients, possibly very slight in degree, but sufficiently noticeable and annoying in delicate blondes. It is attributed by Senator to a vicarious hyperemia of the liver, and as he says, can be lessened or prevented by the free administration of salines preceding the menstrual period. *Icterus emotionis* was known over

2,000 years ago, and to its occurrence during fits of anger is attributable the old saying that "the angry man has bile on his liver." *Hemorrhagic icterus*, developing as a result of a hemorrhage into one of the cavities of the body, and a consequent reabsorption of the coloring matter of the blood; *icterus neonatorum*; and *toxic jaundice*—whether from the poisonous effects of phosphorus, lead, arsenic or mercury, certain forms of fungi, ptomaines, sepsis in yellow fever, acute yellow atrophy of the liver, acute febrile jaundice or Weil's disease, and in rare instances following the administration of ether, chloroform or chloral hydrate, are forms of hematogenous jaundice and will claim but brief mention. Obstructive or hepatogenous jaundice may also result from pressure on the duct by tumors of the stomach, pancreas or omentum, fecal accumulations, displaced organs, a floating kidney, a pregnant uterus, enlarged glands in the fissure of the liver, and in very rare instances from the pressure of an aneurism. Frerichs claims that lowered blood pressure favors resorption of the bile, and to this cause he attributes the jaundice of the new-born. This I question.

Catarrhal jaundice in nearly all cases, as stated, results from extension of inflammation in duodenal or gastro-duodenal catarrh, the principal predisposing causes being exposure to cold and wet, improper food—possibly faultily prepared or insufficiently masticated, excessive or prolonged use of irritants—tea, coffee, alcohol, prolonged anxiety and mental or physical over-exertion, certain acute infections as pneumonia, typhoid, malarial and relapsing fever, portal obstruction occurring in chronic heart or kidney disease; and in rare instances it has occurred in epidemic form, especially in soldiers in crowded barracks. The deficient sunlight and increased moisture in the spring are more important causative factors than low temperature, furnishing more favorable conditions for microbic growth, and the intestinal catarrh producing the jaundice may be of bacterial origin.

In its clinical history the first feature to attract attention in catarrhal jaundice may be the characteristic discoloration of the skin; however, in most cases this is preceded by a general feeling of malaise, a sluggishness, a disinclination to mental or physical effort, or more pronounced indications of gastro-duodenal irritation or disturbance, loss of appetite and other indications of disordered digestion. As a rule, the bowels are constipated, the evacuations when passed being ash or slate colored, offensive and fetid. Flatulence, eructations, a bitter taste and with the discoloration of the skin or prior thereto, the sweat and urine contain bile pigments. The patient's underclothing may be stained, and the urine is frothy, sometimes of a dark porter color, or yellowish or greenish in hue. While under treatment for the gastro-intestinal disturbance, the patient may first call attention to the icterode hue of surface, his notice being attracted thereto by his friends or by his appearance in the mirror. If carefully looked for it will first be apparent in the conjunctiva by contrast with the white sclera beneath. The pulse is usually slow, unless there is febrile reaction due to the gastro-duodenal irritation—however, the temperature is usually low, and both pulse and respiration are increased or diminished in accordance with a high or low temperature. In some cases, owing to decomposition of food in the intestinal tract, the bowels may be quite loose, but show the deficiency of bile.

In addition to the jaundice and accompanying symptoms, there is a uniform enlargement of the liver and spleen. The damming back of bile in the liver results in an irritative hyperemia, and the intricate connection of the spleen and liver through the portal circulation and sympathetic nerve connection and, relations results in a like hypermeia of the spleen, readily determined by careful exploration, which should always be resorted to in all cases presenting jaundice as a symptom. On deep palpation we will gener-

ally find some tenderness of the liver, possibly a sensation of heaviness or fullness, or even soreness.

Chemical tests of the urine will show the presence of bile acids, even prior to the skin discoloration—the most delicate test being by means of filter paper and nitric acid. Filter five or six ounces of urine through clean, white filter-paper, place the paper on a plate or porcelain slab and touch it with a glass rod that has been dipped in C. P. nitric acid, when the usual play of colors will immediately follow, the outermost ring being green.

While in nearly all cases the appetite is impaired, in a recent case this was not so, and as on several previous occasions it was only too good, and it was with difficulty that I could get the patient to limit his dietary as I desired. Usually there is a repugnance to fatty articles of food.

Drowsiness is sometimes present, but insomnia sometimes occasions some trouble; this with itching of the skin are unpleasant and annoying features. Headache and vertigo are common, as well as irritability of temper, despondency and mental dullness. Lichen, urticaria, furuncles and sweatings (diffused and localized) may develop, the latter may be limited to the addominal surface and the palms of the hands. Xanthelasma, consisting of bright-yellow spots, slightly raised, may appear on the eye-lids, and rarely on other parts of the body. Ecchymoses, and in some instances, profuse hemorrhages may occur into the skin and mucus membranes in cases of severe type.

The duration of jaundice may be five or six days or as many weeks or months. It will almost always be protracted for some time after the presence of bile is indicated in the stools, the bile pigments deposited in the tissues being slow of re-absorption and removal. Their presence in the urine and sweat may also persist until the skin clears up—these emunctories serving to eliminate the bile acids when the liver fails and after deposition in the issues.

The diagnosis depends upon a careful study of the case.

It is a disease of early adult life, and while it may occur in middle or advanced age, it becomes more and more rare with advancing years; while the two forms of far more serious disease with which it is most likely to be confounded, the obstruction from biliary concretions and carcinoma largely belong to the years beyond forty. It is usually easy to eliminate errors of diagnosis in other conditions accompanied by jaundice, but in these two it is not only often difficult, sometimes impossible, but always most important that an early, correct diagnosis should be reached.

Gall-stones are not always accompanied by jaundice, according to John B. Murphy, in only 14 per cent of his cases; Fuerbringer found it in 25 per cent, and Wolff in 50 per cent. From Stewart's article in *The American Practice of Surgery*, Vol. VIII., page 235, I quote: "Biliary calculi are rare before the age of 30, common in middle life, and most common after the age of 60." . . . "Gall-stones occur more frequently in women than in men. According to Mayo brothers, of 1,800 cases operated on, 75 per cent were in women, 24 per cent in men—a proportion which German and British statistics confirm." Although gall-stones may exist in the gall bladder without producing any symptoms, yet the pain when it does occur is characteristic, although it may not be located at the vesical site.

Malignant tumors also belong to the fourth and later decades of life, and while not often occurring primarily in the liver, yet this is the most frequent site of secondary deposits, and the presence of a malignant growth in the rectum, uterus, breast or elsewhere, would lead to the presumption of jaundice being a symptom of its secondary development in the liver or biliary passages. In both these conditions, biliary concretions and malignant disease, the general systemic condition is always of more serious and grave manifestation than in the gastro-intestinal catarrh so productive of catarrhal jaundice. While loss of weight is often

to be observed in the latter, it is rapid in its development and lacks many of the characteristics of malignant disease.

In many instances the treatment of catarrhal jaundice only requires a careful and judicious limitation of diet, together with rest and quietude of body and mind. Absolute rest in bed is not always necessitated, and a moderate degree of physical exertion will not be harmful, but rather by keeping the patient from thinking too much as to his condition, may be of benefit. However, if there are prominent indications of gastro-intestinal irritation, absolute rest, even in bed, may be advised for a few days, or until the active symptoms are moderated. With rest and proper diet attention to the accompanying constipation is very essential. For the purpose of keeping the bowels moving salines, especially the phosphate and tartrate of soda, tartrate of potash, magnesia sulphate, etc., form the most eligible measures, however, I usually give an occasional dose of castor oil, with eight or ten drops of turpentine to secure thorough evacuation of the entire tract. Vegetable laxatives, Rhei, Pulv. Glycirrhiæ C., and Senna are commended. Rectal enemas of warm or cold water are also commended, and are of occasional material service in securing increased peristalsis, and in relieving the congested condition of the upper part of the digestive tract by their depleting effect on the lower bowel. Massage of the abdomen, especially over the region of the gall bladder, has been suggested, thereby pressing out the plug of mucus obstructing its outlet. Careful palpation over the liver, which should be resorted to as frequently as possible in all cases of jaundice, in order to promptly detect any serious organic pathological development or complication causing the obstruction, as a benign or malignant growth is sometimes followed by this fortuitous occurrence. The obstruction has been felt to give way during the manipulation, the bowel evacuation showing the appearance of bile a few hours afterwards. Warm bath-

ing by maintaining cutaneous action is both beneficial and comforting, especially if there is much itching of the skin.

An absolute milk diet is advised by some authorities, however, others object to milk; yet when good buttermilk can be procured, I always direct three to five or six glasses a day, which with toast-dry, meat broths, rice, slightly cooked eggs and vegetables and fruits in season, suffice in both variety and quantity for some days, and as indications of weakness and emaciation arise, may be supplimented by fish, fowl and small portions of well cooked lean fresh beef or mutton. As time progresses if the jaundice still persists, the amount of starches may be increased, with sugar, which make up for the exclusion of fats which is required and are usually well borne.

An ample amount of water should be drank daily, this being one of the best as well as the least irritating diuretics, aids the kidneys in eliminating the bile pigment from the tissues. In order to increase the amount taken each day, lemonade and the carbonated and effervescent drinks are worthy of consideration.

Calomel is regarded by many as one of the "stock remedies," and while Hare considers its administration as "injudicious therapeutics," it is advisable to resort to its use from time to time, not so much for its cholagogue action, but as a means of preventing decomposition in the alimentary canal. Hanot recommends giving 5 to 10 grains every day for eight days, and then after a rest of the same length of time, giving it again in similar amount for the same period, continuing the alternation until the jaundice disappears. I prefer a more moderate method, and limit the amount to 1 grain per day, in one-fourth grain doses in the afternoon for one, two or three days, then leaving it off for several days or a week or more.

Other intestinal antiseptics may be used, such as sodium salicylate in doses of ten to fifteen grains, or salol in the same way. Naphthol,, betanaphthol bismuth, small doses of

carbolic acid, and dilute hydrochloric acid, all may be used from time to time when decomposition of food is apparent by flatulence, meteorism, etc. The want of the antiseptic properties of bile in the intestine has caused the suggestion of animal bile, that of the hog being preferable to the official *Fel. bovis purificatus*. Possibly the old domestic remedy of "sheep saffron tea" proved beneficial by reason of the bile acids contained therein. Sodium glychocholate and taurocholate are more palatable than animal bile; sodium cholein may be given in doses of five to twenty grains daily, and sodium glyceroborate is both non-poisonous and antiseptic, the sulphocarbolate being antiseptic and anti-fermentative.

The bradycardia and lowered temperature, with deficient metabolism, with drowsiness and tired feeling may be removed by moderate stimulation, and if small doses of alcohol are objectionable, atropine will be of use. The bad or bitter taste, particularly if accompanied by coated tongue, calls for the mineral acids, with bitter tonics, *nux vomica*, *gentian*, etc. A mouth wash of boracic acid solution or sodium borate pleasantly flavored with *aq. menth. pip.*, or oil of cloves may be used.

The cutaneous itching when causing serious annoyance, and the insomnia may be ameliorated by full doses of the bromides, as much as thirty to forty grains may be given night and morning. Chloral, opiates and coal tar derivatives are objectionable and should be avoided. External applications, such as lemon juice, diluted acetic acid, vinegar, or a 2 per cent solution of carbolic acid often answer well as adjuvants to internal medication. Carbolic acid 1-2 to 1 dram to the ounce of a mild unguent base is sometimes more efficacious. These with warm baths, in which sodium chloride or bicarbonate is dissolved add much to the comfort of the patient, the latter inducing sleep if resorted to at night, as well as aiding in cutaneous elimination, thus relieving the work imposed on the kidneys. The kidneys

should always be under close observation, and any diminution in amount discharged or other indication of renal irritation should be promptly met by mild, unirritating diuretics, with pilocarpin and other active diaphoretics.

In chronic cases, or persistent obstructive jaundice the condition known as cholemia, resembling uremia, may develop. The prodromal symptoms of headache, drowsiness, a sense of fatigue, lapse of memory, and occasionally loss of consciousness in such conditions, if marked and persistent, may be followed by coma closing the case fatally. The measures to be used are stimulants, counter-irritation to back of the neck, an ice-bag to the head, with camphor and benzoic acid. Eichorst recommends Ac. Benzoic, 7 1-2 grains; Camphoræ, 1 gr.; with sugar, 10 grs., every hour or two. This condition, formerly attributed to the presence of bile products in the circulation, is now considered as a result of altered metabolism in the liver and intestinal tract, and uremia, due to defective kidney elimination or accompanying nephritis. The hot bath, diuretics combined with calomel, digitalis and squills, with pilocarpine may prevent or ward off for a time a fatal result.

Selected Articles

"AUDI ALTERAM PARTEM."—A considerable amount of somewhat effusive commendation of Dr. H. W. Wiley, of Washington, D. C., having appeared in quite a number of recent medical periodicals of this country, the following communication which appeared in *The N. Y. Medical Record* of December 9, ult., may be of some interest to some of our readers. It is headed:

"CORRESPONDENCE."

"THE REMSEN BOARD AND DR. WILEY."

"To the Editor of the Medical Record:

"SIR—The public has been so thoroughly hoodwinked regarding the scientific work of Dr. Wiley that it seems neces-

sary that some one who understands the truth of the matter should speak.

"A few years ago Dr. Wiley established a poison squad. A number of young men were given benzoate of soda with their food, and it was found that they became ill. The maximal amount received by any individual in this series of experiments was 41 grams (about 1 1-2 ounces) distributed in small doses through a period of twenty days. As the result of these experiments, Dr. Wiley has never ceased to insist that benzoate of soda is a poison. Reiteration of this statement has made people believe that the statement itself is true.

"The work of the scientist is usually accomplished in the quiet of his laboratory without flourish of trumpets, without newspaper notoriety. An earnest endeavor to separate scientific truth from the influence of psychic turmoil must be the aim of the scientific man. Dr. Wiley's experiments on the contrary were trumpeted abroad. The young men who were the victims must have been more than human not to have been influenced mentally by this course of their chief. They had a fever, many of them; and Dr. Wiley was so alarmed that he discontinued the experiments. Authorities have, however, suggested that the febrile symptoms noticed in this group of men were in reality those of an epidemic of the grippe. It appeared to many that the experiments were not entirely satisfactory, especially after it was learned through an investigation held in Washington that the majority of the individuals employed in the experiment had been used as subjects in previous experiments in which they had been made ill as a result of their ingestion of various deleterious substances. Some of them testified that they fully expected to be made ill by benzoate of soda. Furthermore, the benzoate was administered in capsules and not in diffused state as it would have been had it been taken in preserved food.

"It did not seem to be right that the judgment of a single man should be accepted as final scientific truth, especially when the course of experimental procedure employed by that individual was open to criticism. In recognition of this fact the Remsen board was appointed by the government. It has been freely stated that it would be very much cheaper for the government to abolish the Remsen board and to place the judgment with regard to all such matters in the hands of Dr. Wiley solely. The proposition appears to be that doctrines taught by one man should be accepted as the truth by 90,000,000 people. If the popular state of mind be such, that personal idolatry of Dr. Wiley is to crown him with the added attribute of infallibility, one must go back to the middle ages to find in the worship of the authority of Galen a similar parallel. It will be remembered that Galen, who was born at Troy and who died at Rome in the year 200 A. D., taught medical doctrines, disbelief in which was held to be heresy by the medieval church.

"Dr. Wiley and the newspapers unite together in proclaiming that the work of Dr. Wiley is hampered by the Remsen board. Who are the men who are hampering Dr. Wiley? President Remsen, of the Johns Hopkins University, is the chairman of the Remsen board. Remsen received his education in Germany. It was he who discovered saccharin which was placed upon the market by a German firm, it having been patented without his permission, the profits going to the German patentee. In my student days in Germany a translation of Remsen's book on organic chemistry was largely sold to German students. He is a man of undoubted integrity and high culture.

"Professor Chittenden, Dean of the Sheffield Scientific School, is one of the few Americans who have developed a school of trained pupils. One speaks of the school of Liebig, meaning the men whom Liebig trained. One speaks

of the men of the Chittenden school, meaning the physiological chemists who, throughout the country, hold important chairs of physiological chemistry and of physiology, as members of the Chittenden school. He is a man of great power and great capacity.

"The late Dr. Christian A. Herter was a man of high ideals, a man who endowed lectureships at the Johns Hopkins and at the University of Bellevue Hospital Medical School, a man who was acquainted with the great scientists of the world. Dr. Herter's private laboratory was carried on at his own expense. One of his chief assistants was Dr. Dakin, an Englishman whom the English considered the best chemists they had in their country.

"Professor Long is a man of experience and long service, who has done much work for the United States Government in the examination of food and drugs for the Indian Service. Associated with him in the work of the Remsen board was Dr. Stanley R. Benedict, one of my colleagues at Cornell.

"One of my own assistants, Dr. A. I. Ringer, was in the laboratory of Dr. Herter, and for his careful accuracy I can vouch. These are men whom I know personally, whose integrity I am sure of, whose work I can rely upon, and these men, after many months of hard labor, came to the conclusion that Dr. Wiley's results were absolutely wrong. Investigations were carried on in three laboratories. In Dr. Herter's in New York City, in Dr. Chittenden's in New Haven, and in Professor Long's in Chicago. It was thought best that all of the experiments should be as independent as possible, so that the truth should be arrived at without bias. On account of Dr. Wiley's belief that benzoate of soda was a poison, it was at first given only in small doses. Dr. Herter, however, learned that Lewinsky, a pupil in the clinic of the great Minkowski, had given nearly two ounces (50 grams) of benzoate of soda

to a man in one dose without injuring him. Dr. Herter increased the dose which he gave. Dr. Ringer, for example, took a fifth of an ounce of benzoate of soda (6 grams) without the slightest change in his condition, which could be interpreted as being detrimental. He, with the other men employed, took, through a period of three or four months, dietary containing from 0.3 to 6 grams of benzoate of soda daily.

"Here then were three individual laboratories working under the care of great and experienced men, all arriving at the same result, and all of them deciding that Dr. Wiley's experiments were wrong. These men were the ones to whom the country particularly could look to decide this question, and Dr. Wiley has stated that he has a very slight opinion of their scientific worth. It seems to those who are really in a position to know the truth about the matter that there has been no controversy in this country where the general public has been more completely and absolutely misled as in this question of the relative reliability of Dr. Wiley's statement on the one side and the statement of the Remsen board on the other. Every newspaper from one end of the land to the other is, apparently, willing to place complete control of the regulation of the preservation of food in the hands of a man whose experimental work has been shown to be erroneous.

"Certain experiments made by Dr. Lucas have been widely quoted. Dr. Lucas was one of the subjects in Dr. Herter's laboratory. During his stay in this laboratory information was given to the newspapers which was traced to a conversation of Dr. Lucas. In consequence of this, Dr. Lucas received a severe reprimand from Dr. Herter. Passing from Dr. Herter's laboratory, he went to another, from which he published an article in direct antagonism to the findings of the Remsen board. Dr. Herter, criticising this work of Lucas, stated "Dr. D. R. Lucas has pub-

lished certain statements in regard to the action of benzoate of soda which are so much at variance with the facts as to call for criticism and correction. I deem it my duty to make at least some comment, despite the fact that this work is highly distasteful to me." Dr. Herter, after reviewing the work of Dr. Lucas, stated that "if it were worth while to cite further examples of untrue statements with which this paper abounds it would be an easy undertaking." The newspaper press which quotes the article of Lucas does not measure the relative personal equation which distinguishes Dr. Lucas from the scientific men whose pupil he was in the Herter laboratory. These experiments of Lucas are the only ones ever reported as confirming Dr. Wiley.

The quantity of benzoate of soda which the law permitted to be used as a preservative in three-quarters of a pound of beef was 0.3 of a gram. The subjects experimented on by the Remsen board received twenty times this quantity, or one-fifth of an ounce without affecting their health. As above stated, nearly two ounces have been given to a man without injuring him. However, there must be a limit to the dose which can be given. In the laboratory of the writer Dr. Ringer has found that more than an ounce of benzoate of soda may be given to a goat weighing eighty pounds without any disturbing symptoms other than a loss of appetite. Two ounces given in one dose to this same goat killed the animal. This, however, does not conflict with the statement that in small doses benzoate of soda is absolutely innocuous.

"As regards the normal action of benzoate of soda, the following facts may be of interest. In the bodies of all animals there is a constant production of a substance called glyccoll. This substance is not a poison, but a normal product of the living tissues. When natural foods containing substances which are convertible into benzoic acid are taken by an animal the benzoic acid unites with glyccoll

to form hippuric acid. Hippuric acid is not a poisonous substance.* It is eliminated by the kidneys and is found in the urine. Grass and hay contain substances which form benzoic acid in large quantities, and so there is a large formation of hippuric acid in horses, cattle, goats, rabbits and all herbivorous animals. The same process takes place in man. If huckleberries or cranberries or other related fruits be eaten benzoic acid arises from them in such quantity that the amount of hippuric acid formed may be very considerable. In the same way, when benzoate of soda is given to man with his food it forms benzoic acid, which unites with glycocholate to form hippuric acid, and this passes out in the urine. This capacity does not have to be acquired. It is always present, even in infants. There is nothing mysterious about this. It is based on well-known physiological functions. The organism is adapted to render harmless benzoic acid administered to it in small quantities.

"The argument here presented is in no way intended to dispute the decision of the Prussian Deputation for Medical Affairs that to allow the use of benzoate of soda in the preservation of food would enable the manufacturer to practice methods less cleanly than he should.

"And finally let the reader consider for a moment the following illuminating testimony given by Mr. McCabe (Committee on Expenditures in the Department of Agriculture, August 7, 1911, p. 511.) "There was a correspondent here in Washington almost from the time that the board was created who sent out any number of copies of articles reproduced by a typewritten process abusing the Secretary, abusing the referee board, impugning the motives of the

*Wiley, with a reckless disregard for well-established fact, told Congress (the Committee on Interstate and Foreign Commerce, February 26, 1906, p. 246), the following: "If the kidneys should cease to act twenty-four hours there is not a man in this committee who would not be at death's door from hippuric acid and the urea which would be in the blood. Hippuric acid is perhaps far more poisonous than urea. It is a deadly poison."

Secretary for creating the board, attacking the personnel of the referee board; and those articles have continued to be sent out up to within certainly a very few days.'

"This letter has been written for the public statement of the truth regarding the relations of benzoate of soda to health. It has seemed a public duty which ought not to be evaded.

GRAHAM LUSK."

"Department of Physiology, Cornell University Medical College, New York."

Obituary.

JOSEPH LISTER, first Baron Lister, better known under his previous title of Sir Joseph Lister, sergeant-surgeon in ordinary to King George, died February 11, in London, at the age of eighty-five. He had served as professor of surgery in Glasgow and Edinburgh Universities and in King's College, London.

When Joseph Lister, as house surgeon at University College Hospital, London, began his observations along the lines to which he was destined to devote his life, the mortality in the surgical wards of the hospitals all over the United Kingdom were terrific. The simplest operations were followed by suppuration and gangrene and other disorders and death was a common consequence.

Joseph Lister was born on April 25, 1827, at Upton, Essex. Lister received his early education at University College, London, where he came under the influence of Sharpey. Syme was at that time in the forefront of surgeons and, on Sharpey's advice, Mr. Lister visited Edinburgh with the view of "taking six weeks of Syme's clinic." The six weeks extended into years, for Syme's personality, teaching and practice made a great impression on Lister. In 1860 Lister was appointed professor of surgery in the University of Glasgow.

The deductions which Lister made were that "putrefaction" in wounds was caused by microbes; that these were introduced from the outside; that "putrefaction" might be prevented by keeping the wound free from germs; that this might be effected by the employment of some substance which would destroy the microbe. With the idea of destroying, by an antiseptic substance, the germs in the wound, in everything coming in contact with the wound, *e.g., instruments*, and in its surroundings, Lister made his original tests with carbolic acid.

Honors were heaped upon him. He was made professor of surgery in Edinburgh University and in King's College, London, and sergeant-surgeon in ordinary to the king. Later he was knighted and finally raised to the peerage as Baron Lister, F.R.S., D.C., LL.D., D.Sc., C.M., P.C. and F.R.C.S.—*Cin. Lancet-Clinic*.

Editorial.

STATE HEALTH CONFERENCE.

A call has been issued for a conference of the State Board of Health with the various county and city health officers of the State to be held in the Senate Chamber at the Capitol Wednesday, Thursday and Friday, April 2, 3 and 4. A program is being arranged which will embrace various and timely topics relating to the public health, including discussions on practical and improved methods for the control and suppression of preventable diseases as well as for the conservation of the public health in general.

At the last conference, which was held in April 1910, there were ninety-two county health officers out of ninety-six present, and practically every city and town health officer. It is hoped that even this record will be broken at the meeting this year. Practically 50 per cent of the health officers in the counties of the State were elected at the January term of the county courts, and some of them are unacquainted with the duties of their office. It is to those that the health conference will be a splendid opportunity to get in touch with the

various methods employed by other health officers throughout the State.

In all probability Dr. Harvey W. Wiley, the pure food expert of the government, will be present during the conference and deliver an address.

The delegates to the conference will be welcomed by Gov. Ben W. Hooper, and among the addresses so far arranged on the program are the following:

Prof. Wickliffe Rose, Executive Secretary of the Rockefeller Sanitary Commission, will talk on "What the County Health Officer Can Do for His County."

Dr. W. S. Leathers, of the University of Mississippi, will talk on "Rural Sanitation."

A symposium on typhoid fever will be participated in by Dr. R. E. Fort, of Nashville; Dr. A. M. Gamble, Dr. Louis Leroy, Dr. Wm. Litterer and Dr. S. S. Lumsden, of Washington, D. C., Past Assistant Surgeon, and others.

The relation of the press to public health will be the subject of an address by Editor C. P. J. Mooney, of the Memphis Commercial-Appeal.

S. A. Mynders, former Superintendent of Public Education of the State, will speak on "Medical Inspection of Schools."

Capt. T. F. Peck, Commissioner of Agriculture, who is also a member of the State Board of Health, and Dr. Geo. W. White, State Live Stock Inspector, will also be on the program for addresses.

On the third day of the conference the County Board of Health of Davidson, with the assistance of local physicians, have planned a big barbecue for the delegates to the conference. This will be at the County Tuberculosis Hospital on the Buena Vista Pike when the conference will inspect the institution in a body.

While the program is not complete at this time, enough has been given to show the importance of the subjects to be discussed and the widespread interest which is manifested in these topics. In addition to the talks and discussions mentioned there will be a number of other subjects before the conference.

In a letter to Secretary J. A. Albright, of the State Board of Health, Dr. Wickliffe Rose in writing of the conference says: "I congratulate you upon this meeting. It was my conviction that your first meeting was one of the best things that had happened in the State in the interest of public health. I am convinced that an annual meeting of this kind will be of inestimable value."

Such a conference will undoubtedly be of great value as a medium

for the dissemination of knowledge bearing upon the detail work of the local health officers in the intelligent and effective administration of the public health laws as well as the benefits to be derived from the interchange of views and methods best suited for the purpose indicated.

A SYSTEMATIC STUDY OF MATERIA MEDICA AND THERAPEUTICS.

Heartily commending to our many readers the article of Dr. Ellingwood in the "Original Department" of this issue, and sincerely endorsing his advocacy of a more thorough and systematic study of "the working tools" of the internist, not being in accord with the "therapeutic nihilists" of these latter days; we beg leave to differ with Dr. E. in his deprecation of compound remedies for the "relief of some of the ills that flesh is heir to."

It has long been an accepted fact by all practical therapeutists that many drugs are materially enhanced in their activities by combining with other drugs of like or even quite different physiological properties. For instance, iron, a well known and accepted tonic, is materially aided in its action by combination with vegetable bitters, and its combination with manganese and pepsin we regard as one of the most valuable additions to the armamentarium of the clinician of somewhat recent years. Another combination that has become standard for more than a half century is the old Churchill formula of a rational combination of the Hypophosphites. Digitalis is made much more active by combination with mercurials; opium, in combination with ipecac, although originally introduced and even patented by the one-time old English buccaneer and pirate of the high seas, is both a standard and a stand-by, and will likely so remain for the use and benefit of unborn thousands; but further repetition of many valuable combinations is unnecessary, and we will continue to use even a "scatter gun" when occasion requires, or when we doubt the efficacy and certainty of the single ball of the rifle, which requires more accuracy than is sometimes possible, even to the most erudite and experienced. The single shot may sometimes suffice, but occasionally we need both grape and canister.

GLYCO-HEROIN (*Smith*)—The exceedingly favorable and long continued sentiment on the part of the medical profession toward Glyco-Heroin (*Smith*) is unassailable proof of its therapeutic excellence.

Glyco-Heroin (*Smith*) is decidedly preferable to preparations con-

taining codeine or morphine, by reason of the fact that it does not produce narcotism, constipation, gastric disturbance nor habituation, even though its administration be protracted.

The befitting manner in which its heroin content is combined with henbane, ammonia hypophosphite, balsam tolu and white pine bark renders Glyco-Heroin (Smith) unsurpassedly efficacious in many diseases of the air-passages, notably those attended with cough.

In acute and chronic inflammatory affections of the respiratory system, especially those characterized by cough, Glyco-Heroin (Smith) is vastly superior to other agents of its class, in that its anodyne and anti-spasmodic influence is more pronounced, and its action always more prompt and uniform.

Every possible precaution is taken to restrict the employment of Glyco-Heroin (Smith) to ethical channels, exclusively.

A SAFE AND EFFICIENT SLEEP PRODUCER:—Considered from the view-point of therapeutic efficiency, safety, and freedom from evil effects, in *Pasadyne* the profession has its most reliable sleep-producing agent. *Pasadyne* is the distinctive name of Daniel's Concentrated Tincture of *Passiflora Incarnata*, which has been used extensively by physicians for a third of a century. Its advantages over chloral and the bromides are: superiority of action, freedom from gastric disturbance, absence of habit formation, and safety. The physician who has used the several agents named and compared their advantages, will not hesitate to continue to use *Pasadyne* in preference to chloral and the bromides.

In the practices of thousands of physicians *Pasadyne* has supplanted all other drugs in producing sleep, on account of its demonstrated superiority. The sleep it brings about is calm and restful; the patient awakens as refreshed as from natural sleep. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta.

IN LARYNGEAL OR WINTER COUGHS:—Dr. Walter M. Fleming (Journal of Nervous and Mental Disease) says, that in acute attacks of laryngeal or winter cough, tickling and irritability of larynx, Antikamnia and Codeine Tablets are exceedingly trustworthy. If the irritation or spasm prevails at night the patient should take a tablet, an hour before retiring and repeat it hourly until the irritation is allayed. Allow the tablet to dissolve slowly in the mouth swallowing the saliva. After taking the second or third tablet the cough is usually under control, at least for that paroxysm and for the night. Should the irritation prevail in the morning or at midday, the same

course of administration should be observed until subdued. In neuralgia, in short, for the multitude of nervous ailments, he doubts if there is another remedial agent so reliable, serviceable and satisfactory, and this, without establishing an exaction, requirement, or habit in the system, as morphine does.—*N. Y. Medical Jour.*

PALPEBRINE:—Our readers will note in this issue for the first time the artistic advertisement of Palpebrine. The safe and reliable remedial agent in all external inflammation of the eyes. This product is manufactured by the Dios Chemical Co., who have, during the last quarter of a century, manufactured exclusively for physicians, Dio-viburnia, Neurosine and Germiletum, the reliability of which is generally recognized.

No new and untried drugs enter into the composition of these specialties and their formulae have always been communicated to the profession. Palpebrine will fill a long felt want of the general practitioners, who can themselves treat with this product, safely and successfully, external inflammation of the eyes.

The Dios Chemical Co., of St. Louis, will mail free, trial bottle of Palpebrine on application.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

FUEL FOR THE BODY:—One of the best means of supplying the body with fuel is cod liver oil, for in it are the elements needed by the tissues to take the place of those lost in the phenomenon of energy-production. This is the reason that cod liver oil is widely resorted to for the purpose of restoring strength and energy to an organism, reduced in vigor as a consequence of a protracted illness.

In the selection of a special preparation of the oil, the two determining factors should be: 1st, efficiency, 2nd, palatability, and since these two requirements are clearly met by Cord. Ext. Ol. Morrhuæ Comp. (Hagee), it is in a vast majority of cases, the agent of choice. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) contains in pleasant form the active principles of the oil, reinforced by the hypophosphites of soda and calcium, and may be ordered with every confidence in its power to charge the tissues with needed fuel.

IDEAL CONDITIONS OF SERUM MANUFACTURE:—If there is one therapeutic agent which, more than another, should be prepared with scrupulous care, that agent is diphtheria antitoxin. Its preparation should never be entrusted to the inexperienced or to those who are hampered by lack of facilities. It should have its origin in the blood of healthy horses—animals whose blood is known to be pure. The welfare of the diphtheritic patient demands a serum from which every element of conjecture is eliminated. In the opinion of many physicians these essentials are best exemplified in the Antidiphtheric Serum of Parke, Davis & Co. Certain it is that this antitoxin is manufactured under conditions that are ideal. Miles removed from the smoke and dust of Detroit, hundreds of feet above the river level, the company maintains a large stock farm, equipped with model stables and supervised by expert veterinarians. Here, in the best possible condition, are kept the horses employed in serum-production. The laboratories in which the antitoxin is prepared, tested and made ready for the market are the admiration of scientific men who visit them.

A PLEASANT, EFFICIENT LAXATIVE:—The desirable qualities of a first-class laxative are efficiency and freedom from unpleasant taste. The lack of either to just that extent disqualifies the product for use in the treatment of chronic constipation. That it is difficult to find a palatable and efficient laxative in the same medicament is a pretty generally accepted fact. It is possible to do so, however, and Cascara Evacuant may be cited as proof of that possibility. This preparation is pleasant in taste, and in doses of 15 to 30 minims in water it performs its duty quickly and well, without incidental nausea or distress. That is why children rarely object to taking it, and adults prefer it to other preparations.

The product is manufactured by Parke, Davis & Co. and is procurable from any well-stocked retail pharmacy. To avoid confusion with other so-called aromatic cascarias, however, it is well to specify clearly "Cascara Evacuant, P. D. & Co."

'LAIBOSE' is a new food which in practice is making good all that it seems to promise on the basis of its composition and the sources from which it is derived.

'Laibose' is then a product of great technical excellence and an important contribution to the therapeutics of feeding.

We believe this food will be of exceeding service to the physician in dealing with many cases where the problem of feeding is of prime importance.

Fairchild Bros. & Foster of New York, Washington and Laight Sts., will be pleased to send literature and samples upon request.

NEW MEMBER OF THE TENNESSEE STATE BOARD OF HEALTH:—Dr. J. R. Rathmell, of Chattanooga, who was appointed on the State Board of Health a few months ago, having resigned on account of pressure of professional duties, the vacancy has been filled by the appointment of Dr. A. M. Gamble, of Maryville, Blount County, of which place he is a prominent general practitioner. He is a graduate of the Medical Department of the University of Tennessee, class 1898.

CREOSOTONIC (*Scott*)—The ideal systematic antiseptic. Invaluable in Tuberculosis, Bronchitis, Pneumonia, Asthma, Catarrh and as a tonic after all exhausting diseases. Samples and literature free on request. Address the Dawson Pharmacal Company. Incorporated. Dawson Springs, Kentucky.

IODINIZED EMULSION (*Scott*)—The ideal intestinal antiseptic. Indicated in Typhoid and other slow fevers. Dysentery, Chronic Diarrhoe and gastro-intestinal troubles. Samples and literature free on request. Address the Dawson Pharmacal Company. Incorporated. Dawson Springs, Kentucky.

Selections

ANTI-TYPHOID VACCINATION:—It is reported from Wash-ton, D. C., that on Aug. 28, by order of Major-Gen. Leonard Wood, anti-typhoid inoculation was made compulsory for both officers and enlisted men under forty-five years of age in the United States army.

Like most discoveries, medical or otherwise, anti-typhoid

vaccination has become a perfected procedure only after years of experimentation and apparent failures. Sir A. E. Wright, M. D., of the British Army Naval School, first conceived and put into practice the idea which is now so brilliantly realized. He injected preparations of typhoid bacilli into two soldiers. This was shortly before the Boer war, in which the British had among their troops thirty-one thousand cases of typhoid fever. Obviously, the results of anti-typhoid inoculation were unsatisfactory in that campaign, and it was only after considerable further experimentation that a good technic was finally devised. The medical officials of the German Army attacked the problem, and they cut down the typhoid fever death-rate one half by vaccinating a portion of the German troops in Southwestern Africa, in the campaign against the Hereros in 1904 and 1907. By this time the English were achieving better results; for example, in India, in 1908, among twelve thousand soldiers, half were vaccinated against typhoid, and the other half, under essentially like conditions, were left unvaccinated and maintained as "controls." Seven times as many of the controls contracted typhoid, and eleven times as many died of the disease.

Lieut.-Col. J. R. Kean, of the office of the Surgeon-General, well observes, regarding the application of this typhoid prophylaxis to our sixteen thousand troops in Texas during the recent revolution in Mexico, that although this force had been for upward of three months exposed to all the vicissitudes of camp life—heat, dust, mud, rain, flies and so forth—only one case of typhoid had developed. "The medical authorities of the army are much elated at this great feat of preventive medicine, which they hope will bring into common use a procedure of as great sanitary importance to the American people as was the discovery of the method of preventing yellow fever."

Enough has, indeed, thus far been achieved, and with such uniformly good results, that the procedure should now

be seriously considered in civil life. And such a step has already been taken by the Public Health and Marine-Hospital Service, the officers of which are required to practice anti-typhoid vaccinations on all those beneficiaries of the service who may desire it. These latter include all seamen or persons employed in any capacity, on any licensed vessel of the United States, except enlisted army and navy men. Sailors on inland waters especially are, by reason of the roving nature of their calling, especially liable to typhoid infection, and in consequence they frequently become "typhoid carriers," and thus a menace to the body politic. This measure, then, of the Public Health Service should be regarded as directly calculated to conserve the general health.

Obviously, the next logical step would be anti-typhoid vaccination by the general practitioner, precisely as for smallpox. If the immunity above stated against typhoid can be achieved in military camps, it should obtain even more so among large civic populations. Every urban typhoid epidemic has given rise to a secondary epidemic—which latter might be prevented by prompt inoculations of all the inhabitants in the afflicted area. Boards of health should do this and place vaccine at the disposal of all medical men.

Experience in the army has demonstrated that the discomfort from the inoculation seldom endures beyond forty-eight hours and is less than in vaccination against smallpox. The soldier loses not a single day's duty, nor is he compelled to go to bed. He is watched carefully for twenty days, and is then declared a typhoid immune. Protection is effective for at least two years, and a considerable degree of protection (though not so complete) is afforded by the one inoculation for many years, perhaps for the remainder of the individual's life.

The inoculation is best made (in private practice) in the later afternoon, so that the recipient may retire early in the

evening; it is then most probable that during the following morning all unpleasant reaction will have disappeared.

Especially should the youthful and young adults receive these inoculations, for they are most prone to typhoid infections. Next should hospital attendants on the sick—doctors, nurses, orderlies and helpers—take this simple precaution. Young men and women about to leave home for college or boarding school, people who take long business or other trips away from home and people who take summer vacation trips, should submit beforehand. Typhoid fever is well known to be common in these classes, among whom vaccination would prevent many cases of most grievous illness and many deaths; moreover, epidemics which they would unwittingly originate would by this means be obviated.—*Boston Medical and Surgical Journal*.

THE TREATMENT AND PREVENTION OF MEASLES AND SCARLATINA:—Milne states, in the *British Medical Journal* of September 2, 1911, that in the treatment of scarlet fever and measles by the method he is now advocating complications are unknown; in the 800 cases of scarlet fever he has himself recorded, where this method was adopted, no single case with a complication in the throat, nose, ears, glands, or kidneys occurred. Yet these cases had only from 750 to 400 cubic feet of air space apiece, and some were in poor and over-crowded homes. Further, infection and the spread of the disease are unknown if his method is adopted; he has repeatedly shown how patients with scarlet fever may be nursed side by side with healthy children, or with the most serious operation cases, and how they may within ten days attend school and church with 1,300 other children, without the occurrence of either infection or complication. Such a thing as a return case is unknown.

He next describes the method of treatment he is advocating. As early as possible in the disease, and without waiting for definite confirmation of the diagnosis in doubt-

ful cases of scarlet fever or measles, the tonsils and the pharynx, as far up and down as possible, are swabbed with 10 per cent carbolic oil every two hours for twenty-four hours, or for longer if the swabbing cannot be carried out regularly. Rarely is it necessary to continue the swabbing for longer than this. The swab should be of cotton-wool, firm, the size of the distal phalanx of the patient's thumb, held in a forceps, or fixed to a piece of wood by a thread. A fresh swab should be used on each occasion. The carbolic oil has the great advantage of relieving pain and enabling the patient to swallow more easily. In addition, the patient is gently rubbed all over with pure eucalyptus oil, from the crown of the head to the soles of the feet. This is done as soon as the patient is suspected of scarlet fever or measles, or as soon as he is found to be suffering from either of the diseases. This inunction with oil of eucalyptus is repeated morning and evening for four days, and once a day for the six days following.

The advantages realized by this method of treatment, not only in the experience of the writer but also in that of every practitioner who has carried it out, are as follows:

1. When this treatment is commenced early—and this is vital—secondary infection never occurs, and consequently complications are unknown.

2. With this treatment carefully carried out, children may occupy the same room, and even the same bed, without the risk of infection.

3. The economy of the treatment. An ordinary case in isolation costs ten pounds and upwards; this perhaps two shillings. Therefore it means a saving of millions of pounds annually.

4. Its household economy. The mother is free to attend both the patient and her duties. The father is free to go to work without the slightest risk, and the children equally free to attend school.

5. No after-disinfection is necessary, for the disease having been destroyed, nothing remains.

6. The author has been frequently asked about the disinfection of the patient's spoons, crockery, etc., as these are such a trouble in an ordinary household. The fact is, there is no disinfection, or in any way a keeping of them apart. They are all collected together, washed in the ordinary way, and served out indiscriminately on the next occasion.

7. In measles, as in scarlet fever, there is no necessity for the hair being cut short, neither for destroying the toys, books, etc., for these may be safely interchanged as soon as the patient is able to play. The net result is that there is no interruption of the domestic, scholastic, or business affairs of the household.

Such is the simple, sure, speedy, and inexpensive method the author has advised and of which the *Medical Times* said, "We indorse every word Dr. Milne has written, for we have tried it." Such is the testimony of hundreds of medical practitioners, such as the partial test at Clydebank, "that patient, are as well in four weeks as they were in eight by the old system." Moreover, there have been no return cases. It is worthy of note, too, that the experience at Clydebank shows that this method can be triumphantly carried out in some isolation hospitals at least, although the recorded experience in two of the London hospitals has led the writer to form a different conclusion.

MEDICAL EDUCATION AND COLLEGES:—The recent revolutionary efforts to standardize medical colleges and fix the degree of medical education essential and requisite, according to a certain standard, are found to be very impractical and literally failures.

Medical college training is not unique and peculiar, but must be governed by the conditions and the demands of the day and place. The unfortunate report of the strength and weakness of the different colleges, and attempt to grade

them along a certain plan, has brought out very distinctly some curious features of education in this country.

One is that the great university colleges with their palatial buildings, endowments, laboratories and salaried teachers, represents one extreme, and the poor cross-road college without any of these appointments, except in a very limited way, is at the other. Both of them fail to give the best medical training. One gives a surfeit of facts and theories and confusing medley of clinical experience and laboratory work that is undigested and unassimilable in any practical way, and is mixed up with matters that have to be unlearned and put aside for the future, that the student becomes little more than an egotist whose confused learning destroys him.

The poor school gives only a few facts with the personality of the teacher and this often creates a very vivid desire for more, practically sharpening the appetite, rather than surfeiting it. While it is possible that good medical men may come from these two extremes, it is at a great sacrifice.

The real, practical colleges that are doing the work most urgently called for, are those occupying the middle ground between these two extremes. Colleges that are labelled seconds and thirds, according to the scholastic standard of the A. M. A. Council.

The farcical comparisons which would place the first colleges on the pinnacle and the second and third colleges on a descending scale, indicate a very faulty perspective and failure to realize the necessities and wants of college training.

The great leaders of the profession who are thinkers as well as students realize that the best work can only be done in small colleges, managed by practical men who are doing daily the work that they are teaching. Laboratory work of necessity must be elementary and research can only be done by post-graduates for special purposes. Great clinical

facilities confuse, rather than instruct. The students want instruction in elementary principles and not exhaustive theories or exact methods that by and by must be put aside for some other theories.

The students want the personality of the professors and the inspiration to become students not doctors, but to get an inspiration that will go with them in actual life and make them accurate observers and reasoners.

Colleges must be live kindergarten schools adapted for the students and community in which they live. Medical scholasticism is alright in Europe, but traditional theories and conceptions that have come down from the past fail in this new age and new country. Colleges may be graded, but they must be along practical lines adapted for the students. Palatial buildings and great equipments do not make medical men, they may furnish the facts so essential in real life in a way they may be used, and with it they may teach mannerisms and egotisms that will be fatal.

Great gatherings of medical students and distinguished medical teachers are not essentials for the best training. Often they are great switch points to send a student on a side path, rather than keep him on the main line. Medical college training is by no means a settled and fixed scheme and plan. It depends largely on the men and the students and while it is wise to insist on a higher grade and standard of education, this should be along practical, workable lines. The student must be trained to take up the work as he finds it and adapt himself to the conditions as they exist. If he cannot do this he fails, and the college fails to give the man the proper facilities to discover and apply the great truths of science in the home of the wealthy as well as that of the very poorest persons.

Evidently much work must be done yet, and many very radical changes from the present must be made, to make the college efficient as a training school. The present efforts will have to be changed and the grading worked

over before the real facts can be brought out and made useful.—*Charlotte Medical Journal*.

AN INSANE CLASSIC:—A penniless lawyer of Chicago, hopelessly insane, who was an inmate of the hospital at Denning, died a few years since, leaving nothing but the following prose poem, in the form of a will. It will outlive many a learned treatise destitute of imagination, fancy or sentiment; and even many a bit of verse illuminated by the glow of true poetic feeling. Incidentally it illustrates the kinship which often subsists between talent and mental observation, and may serve to correct certain current misconceptions with reference to the nature of insanity.

I, Charles Lounsberry, being of sound and disposing mind and memory, do hereby make and publish this, my last will and testament, in order, as justly as may be, to distribute my interest in the world among succeeding men.

That part of my interest, which I know in law and recognized in the sheep bound volumes as my property, being inconsiderable and of none account, I make no disposition of in this will. My right to live, being but life estate, is not at my disposal, but these things excepted, all else in the world I now proceed to devise and bequeath.

Item: I give to good fathers and mothers in trust for their children, all good little words of praise and encouragement, and all quaint pet names and endearments, and I charge said parents to use them justly, but generously, as the needs of their children shall require.

Item: I leave to children exclusively, but only for the term of their childhood, all and every, the flowers of the fields, and the blossoms of the woods, with the right to play among them freely according to the customs of children, warning them at the same against the thistles and thorns. And I devise to children the banks of the brooks and the golden sands beneath the waters thereof,

and the odors of the willows that dip therein and the white clouds that float high over the giant trees. And I leave to children the long, long days to be merry in, in a thousand ways, and the night, and the moon, and the train of the milky way to wonder at, but subject, nevertheless, to the rights hereinafter given to lovers.

Item: I devise to boys jointly, all the useful, idle fields and commons, where ball may be played; all pleasant waters where one may swim; all snowclad hills where one may coast; and all streams and ponds where one may fish or where, when grim winter comes one may skate, to have and to hold these same for the period of their boyhood. And all meadows, with the clover blossoms and butterflies thereof; the woods with their appurtenances, the squirrels and birds and echoes and strange noises, and all distant places which may be visited, together with the adventures there found. And I give to said boys each his own place at the fireside at night, with all the pictures that may be seen in the burning wood, to enjoy without let or hindrance, and without any incumbrance of care.

Item: To lovers, I devise their imaginary world with whatever they may need, as the stars of the sky, the red roses by the wall, the bloom of the hawthorne, the sweet strains of music, and aught else they may desire to figure to each other the lastingness and beauty of their love.

Item: To young men, jointly, I devise and bequeath all boisterous, inspiring sports of rivalry, and I give to them the disdain of weakness and undaunted confidence in their own strength. Though they are rude, I leave to them the power to make lasting friendships, and of possessing companions, and to them exclusively, I give all merry songs and brave choruses to sing with lusty voices.

Item: And to those who are no longer children, or youths, or lovers, I leave memory, and I bequeath to them the volumes of the poems of Burns and Shakespeare and of other poets, if there be others, to the end that they

may live the old days over again, freely and fully without title or diminution.

Item: To our loved ones with snowy crowns, I bequeath the happiness of old age, the love and gratitude of their children until they fall asleep.—*The Institution Quarterly.*

A BRIEF ON SALVARSAN:—Despite the universal use of salvarsan, our knowledge of the value of the drug and its limitations is still far from complete. From my own observations and experience to date, my conclusions may be set down briefly as follows:

1. Salvarsan is a most valuable symptomatic and emergency remedy in syphilis.

2. While intravenous injections of mercury are very effectual in many cases, salvarsan can be counted on as more reliable in emergencies than mercury.

3. Relapses are more frequent and earlier after an apparent cure by salvarsan than after an apparent cure by mercury—in whatever form the latter may be given. In brief, the beneficial action of mercury is more prolonged than that of salvarsan.

4. Salvarsan is more effective when mercury is given both before and after its administration. It is not wise to rely upon salvarsan alone.

5. My experience with salvarsan has not changed my opinion of the necessity of a prolonged course of treatment for syphilis.

6. Salvarsan intravenously given is less irritating than bichloride of mercury.

7. Where slips or faults of technic occur, mercury bichloride and salvarsan are both very destructive of tissue.

8. The lesions resulting both from bichloride and salvarsan accidents are exceedingly slow of recovery.

9. Salvarsan mummifies the tissues, whenever solutions are used. It is especially destructive of skin and cellular tissue.

10. The indurations following intra-muscular injections of salvarsan mean mummified tissues. Suppuration and necrosis are rare, because the injured tissues usually remain aseptic.

11. Suspension in oil lessens the destructive action of salvarsan.

12. Intravenous injection of salvarsan is productive of little discomfort where accidents do not occur. The action of the drug is rapid and its elimination relatively rapid as compared with the intramuscular injection.

13. Injections beneath the skin and into the cellular tissue should be tabooed.

14. Intramuscular injections of oily suspensions—preferably suspension in iodized oil of sesame—are especially useful where slow, steady action of salvarsan is desired.

15. Accidents with salvarsan are more frequent than some would have us believe.

16. The chief contraindications are serious, advanced brain and cord lesions, retinal degeneration, heart lesions, and renal disease.

17. The administration of salvarsan, either intramuscularly or intravenously, may, under exceptional conditions, be made an office operation; but it is better to have the patient in the hospital, if possible. The dangers of infection are the same as for the use of bichloride of mercury, and, therefore, slight, with ordinary precautions. The pain and consequent disability, however, often are marked in the intramuscular method, and the patient is better off in the hospital or at home. The local results of the intravenous method are *nil*—barring accidents. But the effect on the heart and nervous system may be sufficiently pronounced to make it safer to have the patient situated so that he can at once go to bed.

18. Time alone can decide whether we are any nearer permanently curing syphilis and in a larger proportion of cases since salvarsan was introduced. I have had and seen

some marvelous results—results which prove at least the temporary efficiency of the drug in destroying the spirochete. In one of my cases a urethral chancre was completely healed on the fourth day, and the eruption—papulo-roseolaceous—disappeared in thirty-six hours.—*G. Frank Lydston, M. D., in American Journal of Clinical Medicine.*

SYMPTOMATOLOGY OF GALL STONES:—Post-mortem examinations made by pathologists of all patients dying in large hospitals and the examination of the upper abdomen by surgeons as a routine measure in abdominal sections has shown the presence of gall-stones in many cases where they were not suspected to exist. It is stated by several reliable authorities that about one person in ten has gall-stones. If this be true, the condition should constantly be borne in mind when examining a patient with abdominal trouble and both physician and surgeon should make a thorough study of the symptomatology of the disease in order that he may recognize it early and treat it properly.

It sounds like a paradox, but it is a deplorable fact that most cases of gall-stones are treated by the physician for indigestion, and that many cases of supposed gall-stones operated on by surgeons are the victims of some other disease. Mistakes in the diagnosis of gall-stones are due to all the early symptoms being referred to the stomach and the supposedly pathognomonic symptom of jaundice most frequently due to cancer.

Indigestion is the earliest and most frequent symptom of gall-stones. It is not produced by imprudence in eating, comes on without definite relation to taking food, and is usually relieved by vomiting. Persistent and intractable indigestion that does not yield to treatment is usually due to some organic lesion in the abdomen, such as appendicitis, ulcer or gall-stones.

Pain located in the epigastrium and radiating to the back is another fairly constant symptom. It is dull aching

in character and varies in intensity. It is increased when the gall-bladder is distended and relieved when it is emptied.

Tenderness over the gall-bladder can generally be elicited by spreading the fingers of the left hand over the patient's ribs and hooking the thumb under the costal margin. When the patient takes a deep inspiration, the diaphragm forces the liver down and the sensitive gall-bladder coming in contact with the examiner's finger causes a sudden catch in the patient's breath.

Colic is a familiar symptom. It is due to the sudden blockage of the duct and the muscular contracting of the gall-bladder to overcome the obstruction. Colic is abrupt in its onset and sudden in its relief. The patient is doubled up in agony, he is white and cold yet sweats. There is faintness, nausea and vomiting.

Jaundice is not a very frequent symptom of gall-stones. Murphy states it only occurs once in seven cases. It is due to obstruction of the common duct, which may be due to its being plugged by a stone from within, but also may be due to its being compressed by a growth from without. It is a fact which cannot be too strongly impressed that most masses of gall-stones are not attended by jaundice, and most cases of jaundice are not due to gall-stones.

Fever is a frequent symptom of gall-stone disease, due to an increase in the acuteness of infection. It is marked by its rapid rise and abrupt termination. If the range of temperature be charted, it gives an appearance which Moynihan calls the "The Temperature Angle of Cholangic Infection."

Tumor or a movable pear-shaped mass which can be palpated in the region of the gall-bladder indicates either obstruction of the cystic duct with a stone and distention of the viscus with mucus, or the obstruction of the common duct by cancer and the distention of the organ with bile.

The symptoms of gall-stones have been hurriedly and im-

perfectly reviewed in an effort to interest the reader in the subject. Gall-stones are never innocent. They may be quiescent for years, but sooner or later they will give trouble. Gall-stones always cause symptoms. The reason a diagnosis is not made is because the symptoms are misinterpreted.—S. McG., in *Virginia Medical Semi-Monthly*.

ACUTE, INTUSSUSCEPTION IN INFANTS:—The *Therapeutic Gazette* (December) quotes Roughton in the matter of the treatment of acute intussusception in infants. This is always surgical. The transference of these cases from the physician to the surgeon has been attended by a marked lowering of mortality. Injections are strongly condemned. In the first place valuable time is lost; secondly, they are painful, and add to the shock; thirdly, the mere disappearance of the tumor does not necessarily prove that the injection has been entirely efficacious. Roughton remarks that the operator is blessed who has the assistance of an anesthetist who is not afraid to thoroughly relax the child, since straining distinctly prolongs the operation and adds to its risk.

“The right rectus incision is advised, and if there is in inveterate tendency to visceral prolapse this is not resisted, the intestines, however, being wrapped in towels wet with hot salt solution. At the end of operation reduction is best accomplished, not by pushing the intestines, but by strongly holding up and lifting the edges of the abdominal wound when the viscera fall back of their own accord.

“Reduction of the intussusception is accomplished by gently squeezing the rectal end of the tumor. This produces no shock, providing the intestine or mesentery is not dragged on. The last piece of invagination should always be brought into full view in order to make sure that the reduction has been made complete, and the cecum and

appendix should always be inspected before closing the abdomen.

"Roughton expresses the belief that the intussusception never recurs when reduction is properly accomplished; the wall of the intestine is far too much thickened, stiffened, and paralyzed to allow it to turn itself inside out again. The obstacle to reduction of the last few inches is the swollen condition of the apex of the intussusception; adhesions do not have anything to do with it, at any rate in early cases. There is no need of shortening the mesentery or fixing the cecum.

"Gangrenous cases are practically regarded as beyond hope. Attention is justly called to the need of reenforcing in infants the ordinary three-layer suture by through-and-through silkworm-gut sutures.

"Watson Cheyne, in commenting upon Roughton's results, states that he is so well convinced as to the wisdom of omitting injections that they are not even mentioned in the present edition of his *Manual of Surgery*. Indeed, the majority of clinical surgeons, though envying Roughton's success, will thoroughly agree with him as to the means by which he accomplished it and as to the possibility of practically all surgeons doing the same, providing the medical profession sufficiently appreciate the usual futility of injections and the life-saving value of early diagnosis and immediate operation."—*Cin. Lancet-Clinic*.

THYMOL IN HOOKWORM DISEASE:—In the issue of the Public Health Reports for December 8, 1911, Chas. Wardell Stiles and George F. Leonard discuss briefly the administration of thymol in hookworm disease. Recently an exceptionally severe case of the disease came under their observation. In order to impair the patient's strength as little as possible the preliminary dose of magnesium sulphate, usually given the evening before the thymol is ad-

ministered, was omitted, and very small doses of thymol were employed. The results were satisfactory. In several other cases thymol was administered without first giving salts, and hookworms were obtained. Consequently, on theoretical grounds and from practical experience, in cases of severe hookworm disease, the authors feel justified in recommending that the preliminary dose of salts be omitted and small doses of thymol be used for one or more courses of treatment. It is also pointed out that the number of worms obtained in any given case is influenced not only by the size of the dose of thymol, but by the number and position of the worms present and the amount of food in the intestinal tract. The principle upon which the small dose is used is that if numerous worms are present the thymol will reach some of them at least, and a case of severe infection can thus gradually be reduced to one of lighter infection.—*N. Y. Medical Record.*

A SIMPLE MEANS OF REMOVING PLASTER APPARATUS:—

In spite of the use of special instruments, the removal of apparatus containing plaster-of-paris is often troublesome, and in the case of a recent fracture may cause injury. Methods of softening the plaster by water, either alone or with the addition of salt, are rarely successful, as the apparatus becomes coated with a layer of grease which prevents their action. The writer has obtained satisfactory results by moistening the line of section with vinegar applied on a tampon of wool. After a minute the plaster will be found completely softened so that it may be easily divided with a pocket knife or ordinary scissors—a procedure easy for the surgeon and painless for the patient. By this method a plaster cast for a fracture of the femur, consisting of eighty turns of bandage, may be removed in about a minute and a half.—Stransky (*La Samaine Medicale.*)

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HERNIA:—A CLINICAL LECTURE.

BY M. C. M'GANNON, M. D.

Professor of Surgery Vanderbilt University, Medical Department, Surgeon-in-Chief to the Woman's Hospital.

Gentlemen—The little patient whom I have the pleasure of presenting before you today is four years old. During infancy he suffered with intestinal troubles. When about three months old he developed an enlargement in his left inguinal region, which was diagnosed as a hernia. A truss was applied; this mechanical support he has continued to wear until the present time.

What do we mean by hernia?

Definition:—A hernia may be defined as a protrusion of a viscus from its normal cavity.

When the brain protrudes we call it as *Hernia Cerebi*; when the lung protrudes we speak of it as *Hernia Pulmonis*; but by common usage the term hernia when it is not qualified is understood to mean a protrusion of an abdominal viscus.

The causes of hernia are both predisposing and exciting. The predisposing causes are:

(a) Weak places in the conformation of the abdominal wall, viz: the femoral ring, the inguinal canal, the umbilical opening. Nature has reinforced these weak points with fibrous surroundings, but sometimes they are not sufficiently strong to prevent protrusions.

(b) Congenital defects or abnormalities: late descent of the testicle, patulous condition of the tunica vaginalis. In the female failure of obliteration of the peritoneal protrusion through the inguinal canal—the so-called Canal of Nuck.

(c) Elongation of the mesentery.

(d) Weak abdominal wall resulting from operations, repeated pregnancies, ascites, emaciation, etc.

The exciting causes are:

Violent muscular exertion due to any cause—straining at stool, coughing, jumping, accidents, as for example being thrown from a buggy.

For clinical study we recognize certain varieties of hernia. These clinical divisions are made because of:

(a) Their anatomical position.

(b) The formation of the sac.

(c) Their pathological conditions.

Anatomical classification:

First, Inguinal; second, Femoral, third, Umbilical; fourth, Ventral; fifth, Diaphragmatic.

I. Inguinal Hernia comes down through the inguinal canal. Of this variety we have two forms: *direct* and *indirect*.

The indirect or oblique follows down the inguinal canal and finds its way through the external inguinal opening and lies external to the epigastric artery. The direct protrudes through the external inguinal opening, but does not go through the internal ring; it lies to the inner side of the epigastric artery.

II. Femoral Hernia: leaves the abdominal cavity through the femoral canal and finds its exit below Poupart's ligament at the femoral ring. This form is much more common in women and does not attain a large size.

III. Umbilical Hernia: appears at the umbilical opening and is much more frequent in children than in adults.

IV. Ventral Hernia: is an escape of an abdominal viscus through the abdominal wall at some other place than one of the natural openings, for example through the line of incision of a previous operation.

V. Diaphragmatic Hernia: In this type the escaping viscus finds its way through the diaphragm into the thorax; this form is rare.

(b) Clinical division based on the formation of the sac:

Congenital Hernia: In this form the sac is due to a portion of peritoneum protruding through the wall in foetal life and which should be obliterated, but which has remained.

Acquired Hernia: That variety in which the sac has been gradually formed by stretching of the parietal peritoneum through an hiatus in the muscular wall of the abdomen.

(c) Pathological division:

I. Reducible—those that can be returned to the inside of the abdominal cavity.

II. Irreducible—those that cannot be returned, but in which there is no interference with the circulation, and no interference with the onflow of the intestinal contents.

III. Strangulated—in this variety the circulation is cut off, and if there be intestine in the sac, the outflow of the faecal matter is obstructed.

All forms of hernia produce a tumor. This tumor is made up of a sac and its contents. The sac is usually peritoneum. An exception is where a portion of the intestine comes out underneath the peritoneum, but this is rare. The contents may be composed of any viscus found inside the abdominal cavity. Usually it is one of two things: intestine or omentum.

The form of hernia from which our little patient is suffering is evidently inguinal.

Symptoms:—The clinical symptoms of this form of hernia are all present in the case we have under observation.

A tumor or enlargement in the region of the inguinal canal. This swelling is painless, more or less elastic, and can be made to disappear through the inguinal canal into the abdominal cavity by manipulation while the patient is in the recumbent position. When he stands up the tumor returns from above downward. An impulse on coughing is imparted to the examining hand held over the mass. Percussion elicits a tympanitic note over the enlargement, demonstrating that its contents must be filled with gas, hence must be intestine. If the contents consisted of omentum or any solid body the percussion note would be dull instead of tympanitic.

Diagnosis:—If the hernia exists in the groin you will be compelled to differentiate it from:

(I) *Bubo*—This is usually associated with some discernible source of infection—probably an old gonorrhœa, chancre or chancroid, or some other ulcerative process about the penis or vulva. The tumor or bubo will be red or inflamed, tender on pressure, and there will be diffuse swelling. The history is entirely different from that of hernia.

(II) *Undescended Testicle*:—The testicle remaining up in the inguinal canal. This may be differentiated, first by the peculiar character of the pain on pressure—a sicken-

ing, dull distress, and by the absence of the testicle from the scrotum.

(III) *Varicocele*—This usually begins in the lower part of the scrotum and fills from below upward, while hernia fills from above downward. On lying down the veins tend to empty themselves, but may be made more apparent by pressure over the inguinal ring. The tumor does not disappear with a gurgle. The veins feel like a bag of worms.

(IV) *Hydrocele*—Gives no impulse on coughing to the examining hand. It is translucent, does not disappear when the patient lies down. In many respects it simulates inguinal hernia.

Accidents:—

(I) Hernia may be irreducible (a) owing to the sac containing a large amount of omentum, and contraction about the fatty mass causing swelling due to interference with the circulation; (b) the size of the hernia; (c) collection of fluid in the sac; (d) adhesion (*the most common cause*), due to inflammation.

(II) *Obstruction*—When this accident occurs the faecal flow through the intestine is interfered with, but the circulation in the blood vessels continues.

(III) *Strangulation*—In this form of accident the circulation of the blood through the hernial contents stops. If the content be bowel, it matters not whether it be the large or the small intestine, very soon all the symptoms of obstruction of the bowel will be manifested. The pain will be violent and colicky in character; there will be constipation, vomiting, tympanitis, ascites and other signs of obstruction of the bowel. If this is not relieved the bowel will become gangrenous, and death of the individual will speedily follow.

Treatment:—No matter what line of treatment is adopted it resolves itself into two objects to be attained:

(I) Reduction of the hernia—that is the return of its contents within the abdominal cavity.

(II) Retention of the returned contents in their normal situation.

Reduction is to be accomplished either by—

(a) Taxis—that is, by manipulation. In the majority of cases the hernia can be reduced manually by careful persistent efforts. The administration of morphia or chloroform are great aids to reduction by taxis, since they cause relaxation of the muscular tissue about the protruding mass. An ice bag over the hernia or a hot tub bath may prove of great service, especially in cases in which the hernia has become suddenly enlarged and painful, due to interference with the circulation causing congestion.

Always remember that undue violence in your efforts at reduction may cause rupture of the intestine or produce other serious complications. If after reasonable and careful efforts at manual reduction, the hernia persists, then this method should be abandoned and for reduction, immediate resort should be had to operation.

Retention of the hernial contents within the abdominal cavity may be accomplished in one of two ways:—

(I) By the use of a proper fitting truss. A truss must never be employed (a) unless the contents of the hernial sac can be and have been returned inside the abdomen; (b) unless it will hold them there without causing the wearer distress.

This method of treatment may be adopted in very young children and in all cases in which there is a marked contra-indication to an operation, for example, in persons with advanced kidney or heart lesion.

It must always be remembered that a truss worn does not cure the disease. It is a mechanical contrivance devised to temporarily overcome a defect, and it will do this only so long as it is employed, hence it must be worn continually during the lifetime of the sufferer, or until the disease is cured by an operation.

Retention by operation:—In what cases shall we resort to operation is a most important question.

Until recently surgeons did not advise operation in children under three or four years of age: since clinical experience demonstrated that the risk was considerable and that a truss persistently worn would cure many of these cases. Now, however, since we have learned that these cases that have seemed to be cured by wearing a truss tend to return in later life, and further since the statistics in many thousands of cases have demonstrated that with our modern and greatly perfected methods that the mortality is about one in seven-hundred (1 in 700), we do not hesitate to advise the cure of hernia by operation even in infants. There can be no doubt that the child develops better locally and generally if this defect is removed.

In adults, unless some contra-indication to an operation of any kind exists, there can be no valid reason advanced for the employment of a truss. If a truss be worn it never cures and sooner or later as the years advance it will fail to prevent the hernia from descending into the sac outside of the abdominal wall.

In persons of advanced years, say between sixty and seventy, operation for the cure of the hernia should be advised and practiced provided the general health otherwise is good. The ultimate result of operative measures is a complete cure in about ninety-eight per cent of the cases operated upon.

The operation may be performed under either:

- (a) Local anæsthesia with cocaine, or
- (b) General anæsthesia with chloroform, æther, or gas.

Local anæsthesia *should* be employed in all cases in which any contra-indication to general anæsthesia exists and may be employed in operations upon adults who are not of a nervous temperament, or who are not as a result of this or any other disease already in a neurasthenic con-

dition. A general anæsthetic should always be employed when the operation is to be performed on children.

Careful asepsis is a "*sine qua non*" to success. Any break in the aseptic chain which results in suppuration will ruin an otherwise painstaking effort.

The modern operation no matter how modified seeks:

1. To obliterate or remove the hernial sac.
2. To so treat the sac contents that they will be returned inside the abdominal cavity in such condition that they can perform their functions normally.
3. To close the defect in the abdominal wall in such manner that the hernia will not recur.

The Johns Hopkins Hospital method seeks to obtain these desired ends in the following manner:

1. The incision is free and extends from the external ring on a line about an inch above Poupart's ligament to a point some distance above the internal inguinal opening.
2. The external oblique is split from the external opening of the inguinal canal until the hernial sac and the spermatic cord are freely exposed, as you see me do in this patient.
3. The sac is now dissected carefully from the spermatic cord, which is not disturbed. If the veins are much enlarged (they are not in this case), they are carefully tied off and resected.
4. The sac is now opened and its contents examined and dealt with as may be found necessary. You see in our patient that the sac contains healthy intestine which I am able to at once return within the abdominal cavity. Had it contained, as it often does, a large mass of fibrous omentum, I would have ligated and removed the mass. The sac is easily, as you see, dissected by the pressure of my finger from about the opening in the abdomen and pulled down. A fine catgut ligature tied about the sac as high as possible suffices to close it. This closure may be made by suturing the opening instead of tying a ligature about it as I have

done in this case. As I cut the sac away the stump at once retracts inside the abdomen and disappears.

5. The closure of the opening in the wall is made by suturing the transversalis and internal oblique muscles to the lower shelf of Poupart's ligament and then closing the separated fibres of the external oblique. In this case I am carrying the upper flap of the external oblique over the lower flap so that two layers of the oblique aponeurosis are superimposed upon the line which is thus strengthened. The fat, fasciæ and skin may be closed with any kind of suture you may wish. In this case I am using fine catgut buried throughout. The wound may be dressed with sterile gauze and the whole supported by a Spica bandage. In children it is advisable to seal the wound with flexible collodion as you see me doing. It is thus protected from being soiled by the urine or faeces.

The Bassini method differs from the above in as much as that author lifts the cord outside of the wound, after which he sutures the transversalis and internal oblique muscles to the lower shelf of Poupart's ligament, thus forming a bed on which he now places the spermatic cord; over this he unites the external oblique. This may be done either by approximating its split edges or by flapping it after the manner you saw me do a moment ago. The outer wound is closed in the usual way.

The after treatment is simple:

The patient should be confined in the recumbent posture for about three weeks. Some surgeons let them up at the end of the second week, but in my opinion it is very doubtful if a union becomes sufficiently firm in so short a time to be safe against a return of the hernia.

GENERAL TREATMENT OF GHONORRHEA.

BY W. T. MARRS, M. D., OF PEORIA HEIGHTS, ILL.

This disease is one which in times past the laity have been inclined to regard as self-limited and therefore one

to be looked upon only as a temporary inconvenience. It is true that under proper hygienic conditions and correct living the body secretions may successfully oppose the propagation of the gonococcus with a consequent vanishing of symptoms and sequelæ in three or four weeks. In other words, a spontaneous cure is effected.

These things being true, and in view of the fact that gonorrhea is by some considered a self-limited disease, it is one that is woefully neglected by the sufferer. It is, however, one that deserves the same general treatment and hygienic care as any other acute disease.

In the first place, the patient should abandon all his activities and go to bed and remain there until the symptoms abate. Instead of this he too often goes about his affairs as if nothing were wrong and does not correct his habits of eating, drinking, working and thinking. Too often his treatment is applied in a haphazard manner and brings no apparent good results. Perhaps in a few weeks when his condition seems unimproved he will accuse his physician or his friendly prescribing druggist of "nursing" his case along for the sake of his piffling fees.

In the army service the victim of acute gonorrhea is placed in the hospital and kept quiet, his diet rigidly restricted, and in a short time he is dismissed as cured. It is highly essential that stimulating food be omitted and that all the secretions and glands be hampered in the least manner possible. It is important that the bowels be kept open and that the patient when on his feet wear a properly-fitting suspensory bandage.

In the acute stage the diet should consist mainly of milk. Toast and soft cooked eggs are permissible, and a modicum of fruit and vegetables can do no particular harm. Mucilaginous drinks, as oatmeal and barley water, have a measure of value. Distilled water seems to exert a benign influence, particularly in cases in which there is a good deal of vesico-urethral irritation.

Indifference in the matter of employing treatment has been casually referred to. Not infrequently the sufferer in his eagerness to bring about a quick cure uses measures and medicines, on his own accord or at the hands of his prescriber, that retard the curative process and may also produce other and sometimes far-reaching complications. No later than last week I observed in a young man a severe case of orchitis and dysuria which supervened as soon as he had begun the use of an irritating injection.

It is, by the way, in my opinion, doubtful whether injections in the acute stage ever do any good; it is likely that they often do harm by carrying the gonococcus into new and uninvaded fields and causing it to burrow in the sub-mucous tissues. Peroxide may inhibit some of the gonococci, but its foamy, seething action may also serve to spread those that it does not kill. Astringents at this stage may lessen the flow, but only dam the germs back into the deeper tissues, thus creating in the mind of the sufferer a deception as to his true condition.

If the patient insists upon employing injections in the acute stage these must be mild—say warm borated water—and such should be applied with little force and only to the anterior urethra. It is a good plan to let the fellow lavage the penis in hot boracic acid solutions at frequent intervals. This appeases his mind and may accomplish certain good results.

Of remedies taken internally with a view to sterilizing the urethra and rendering its mucous membrane in a measure invulnerable to the gonococcus, sandalwood oil holds a time-honored place in our therapeutics. Unfortunately untoward by-effects so often attend the use of this remedy because of other elements of a deleterious nature which it has been known to contain. The by-products in an impure preparation of sandalwood oil may upset the stomach and cause irritation of the bladder and kidneys. Occasionally it may

bring on a vesical hemorrhage, as the writer observed in a case a year or so ago.

None of these unpleasnt effects have been observed by me since I began using gonosan, or the Kava Santal of Riedel, which is a preparation of the Kava resins in pure East Indian sandalwood oil. It has given me very gratifying results, for it seems to allay urethral irritation and antisepticizes the urinary tract, at least in so far as this result can be accomplished. In doing this complications are obviated and nature, the greatest of all healers, is permitted to consummate a cure in the shortest possible length of time.

Gonosan is not to be regarded as a specific, but I have found it helpful in all cases of gonorrhea, especially in that it renders the germ in considerable degree innocuous and thus preventing complications and after-symptoms. It does not irritate the stomach or produce other disagreeable effects. Two capsules should be taken at mealtime thrice daily, or more frequently in urgent cases.

It must be impressed upon the patient's mind that any line of treatment to prove most efficacious devolves upon his good behavior. He must refrain from severe exercise and must be abstemious in his diet and virtuous in his thoughts. His whole life should be shaped along clean and hygienic lines. This done he may reasonably expect a permanent cure in from two to four weeks.

CLINICAL SOCIETY OF NEW YORK POLYCLINIC MEDICAL SCHOOL AND HOSPITAL.

Meeting of February 5, 1912.

A CASE OF ADVANCED CARCINOSIS; PROLOGATION OF LIFE BY OPERATION.—(Presented by Dr. C. A. Frink.)—Dr. Frink presented a case of a woman, 48 years of age, widow with three children, one miscarriage. Her family history showed longevity on both sides. Her husband died of phthisis twenty-six years ago. She had one previous attack of ap-

pendicitis. Seventeen months ago patient had attacks of what she called indigestion, with constant pain, behind the sternum and vomiting. Never vomited blood, but noticed that food taken several days previously appeared in the vomitus. A diagnosis by her physician was made of "nervous dyspepsia." She lost weight and strength and the vomiting increased. No lung symptoms were present. On entering the Polyclinic Hospital she could not retain food, and she showed a stenosis of the pylorus valve. She was very emaciated, skin dry, and no adipose tissue at all. Laboratory findings.—Blood, a secondary anemia; sputum negative. The X-ray was unsatisfactory. Stomach contents showed: presence of lactic acid, no free HCl, or Boas bacilli. Urine normal.

Examination of the abdomen showed a mass the size of an orange, situated over the pyloric valve, immovable. Operation: December 4, 1908, by Dr. Bainbridge, who did a retro-colic gastro-jejunostomy. The inoperable mass with its enlarged glands which about closed off the pyloric orifice were not touched.

Subsequent History.—June 11, 1909. The patient returned with her first trouble since operation. Vomiting after food. She otherwise continued in good health, until the spring of 1911. In May of this year she showed signs of infection by T. B. And in July the T. B. bacilli were found in the sputum. The patient died of pulmonary T. B. on August 6, 1911.

Conclusion.—The history of this case, emphasizes the importance of operating on cases of cancer that do not appear from the clinical findings to be good surgical risks. This patient was a poor surgical risk, so far as there being any chance of curing her condition by operation. Nevertheless by doing all in our power, she was able to return to her home and family, enjoying good health, eating and sleeping well, and she gained over fifteen pounds in weight. Two and one-half years after operation she died of a condition entirely independent of her former trouble. We feel

that through surgical intervention we prolonged this woman's life, making her a useful member of society for this additional time.

Dr. John A. Wyeth said he considered it the duty of a surgeon to take any and all risks regardless of what might be the result on his reputation or statistics when the patient is in such a state that the conditions seem absolutely hopeless, and death seems imminent, no matter whether the patient dies on the table or not, if in the judgment of the conscientious surgeon, there is a possibility of contributing to the patient's comfort, lessening his discomfort or prolonging his life, it is his duty to undertake the operation. One of the severest criticisms he could make about any man is that he would not undertake a case if he thought the patient would die.

Dr. Bainbridge said: That at the time of operating on this case he had met the conditions exactly as Dr. Wyeth had described. The patient had consented, knowing full well her serious condition, and had never ceased to be grateful for her prolonged life. She seemed particularly discouraged in not being able to survive the phthisis when she had been relieved of the stomach condition which seemed to her to be so much worse.

A CASE OF TUBERCULAR PERITONITIS; PROLONGATION OF LIFE BY INTRA-ABDOMINAL ADMINISTRATION OF OXYGEN.—
(By Dr. H. D. Meker.)—Dr. Meker showed a case of tubercular peritonitis which he had treated by the intra-abdominal administration of oxygen. The case was apparently cured. He also advocated its use in cases of profound shock and ascites, and said that it required from seventy-two hours to four or five days for complete absorption. Care had to be exercised in watching cases as the abdomen became flat in from forty-eight to seventy-two hours. Collapse from its complete absorption should be guarded against, by the free administration of stimulants. Dr. Bainbridge said he had been using oxygen to meet shock in abdominal surgery for the past eight years, and had

treated in all about one hundred cases. He had noted marked improvement and a ready response to its use.

A NEW PNEUMATIC ELECTRIC PROCTOSCOPE.—(Shown and demonstrated by Dr. Frank C. Yeomans.)—Dr. Yeomans demonstrated a new proctoscope and sigmoidoscope. He said that hitherto the practical methods of directing lighting of proctoscopes, were by small electric bulbs, carried near the distal ends of the tubes, on insulated carriers, and that they burned out easily. He had adopted the principal of illumination by a more powerful light, within and at the end of the ocular portion of the tube. The proctoscope is ten inches long, graduated in inches, seven eighths of an inch in diameter, and is fitted with a large flange, at the proximal end which is perforated by a small tube, joining the main tube at an angle. A light carrier fits very tightly into the auxiliary tube, and a substantial incandescent bulb is covered with a capsule bearing a plano-convex lense, so set that the collected rays are refracted at a compensating angle to the light carrier. This lense only projects into the main tube, and in no practical way interferes with inspection of the bowel, or the passing of instruments. The ocular end of the tube is enclosed hermetically by a plug which contains a glass window to magnify the illuminated field. A hand bulb attached to a small offset at the side of the plug inflates the bowel to any degree desired. The same light carrier and plug fit the sigmoidoscope which is also fourteen inches long and three-fourths of an inch in diameter.

The points of superiority in this new instrument are: Simplicity of construction; sterilizable by boiling; excellent illumination by a strong electric lamp which will not burn out readily; and thorough practicality for examination, diagnosis or treatment of lesions in the rectum or sigmoid below its apex.

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Selected Articles

INDICATIONS FOR HERNIOTOMY IN INGUINAL HERNIAS*

BY S. B. MOORE, M. D., ALEXANDRIA, VA.

Vice-President, Medical Society of Virginia.

I wish to make an apology for this paper, as it is far from being complete, but I hope it will bring out some points for discussion.

Herniotomy is the only safe method of treating inguinal hernia in the adult, as we cure nearly all cases with a mortality nearly *nil*.

The operation on the aged is growing more popular, because it is being done with more safety and with greater promise of cure than formerly supposed.

It is the simplest and best method of treating hernia in children especially above one year of age.

I contend that if statistics stand for anything in medicine and surgery, inguinal hernia should be treated in most all cases by operation, as it is safer and more rational than any other method.

Some years back we made exceptions of small children and of the aged, but we find that we can safely operate on children or old people when they are sound in other respects. The exceptions are very delicate small children and extremely old people with large, long standing hernias, and where the heart and kidneys are badly diseased. In strangulated hernia we make no exceptions.

Some years ago when our technique and knowledge of operative procedure was not so good as today, the truss was used to considerable extent, but in many cases did more harm than good, first, by partially obliterating the canal or sac, which in after-life, by some extra effort, would al-

*Read before the Medical Society of Northern Virginia and the District of Columbia, at Washington, D. C., November 15, 1911.

low the bowels or omentum to be forced down. A majority of these cases will become strangulated. Second, the muscles are greatly weakened and atrophied by pressure of the truss, and this makes the operation more difficult and less liable to be successful.

Treatment by injection appears to be not only unsatisfactory, but dangerous.

The truss is used more today by the laity than the physician; generally a drug clerk will fit a truss to the mass or swelling in the inguinal or femoral region without any knowledge of the anatomical arrangement of the parts. Possibly the mass may be a bubo, or fatty tumor, or hydrocele of the cord, or it may be a partially strangulated form of hernia.

The danger from operation is practically *nil*, so there is no excuse for the general practitioner not sending this class of cases for operation.

It is a well recognized fact that it is very difficult for members of the medical profession to throw aside old well-tried methods of treatment for something more radical, especially where this method is operative. The truth of the matter is, the layman does not know that hernia is a curable disease, and he more frequently seeks a druggist than a physician in search for a truss as means of relief. The fault lies with the medical man in not educating the public that hernia is a dangerous condition and can be cured by operation.

A man with a hernia is not considered sound; he can not enter into sports and pleasures or work to the same degree as his more fortunate brother. He is debarred from the army, navy, police and fire department services; he is likewise an undesirable risk for life insurance. Again, in childhood, the anxiety of the mother must be considered, for, whenever the rupture slips down, she worries until it is replaced; when she is away from the child she is afraid something will happen or the truss will work loose. The child

is generally kept in the house when it should be out getting the fresh air, thus endangering the child's health.

About 75 per cent of the hernias are of the inguinal variety. Coley, in reviewing about 15,00 inguinal hernias in the adult, reported that about one-third of them had hernia in infancy or childhood. Some writers claim that all inguinal hernias up to the period of middle life are congenital, and a majority agree that a typical acquired hernia is a rare condition.

The truss cures about 50 per cent under twelve months of age, about 10 per cent from one to five years, and after that practically none. In the acquired hernia the truss cures 5 per cent at fifteen years of age, and 1 per cent at thirty years. Many of these cases are not permanent, as we have a congenital defect or partially closed sac that will cause recurrence later from some extra effort, as lifting heavy weights, or any effort that will cause great strain on the abdominal wall. Many times this will not occur until after middle life or old age, due partially to a lack of tone or thinning of the abdominal muscles. After operation you rarely see this occur.

In operating on old people, we have a thin white tissue of the internal oblique and nearly obliteration of the conjoined tendon. The opening is either directed anatomically or has become so from long standing. This makes a poor floor. We may open the sheath of the rectus and use the muscle if necessary.

Relapses seen in these cases have come just above the pubic bone for several reasons. It is best to transplant the cord and close the lower angle as closely as possible; another cause of relapse in the aged is an old cystitis or enlarged prostate with accompanying symptoms as straining and frequent urination; lowered vitality is another condition that should be remedied before attempting herniotomy.

Operating upon children is less difficult than upon the

adults. It is seldom necessary to disturb the cord. Always ligate the sac as high as possible and allow it to drop back. In the event there is no obliteration and the hernial sac and tunica vaginalis are the same process, it will be necessary to divide this sac near the neck, then continue the dissection of the proximal part to the internal ring and ligate, saving the distal portion as a tunica vaginalis. I think it best to keep this sac open, for by closing it tightly you may cause the formation of a hydrocele. (This happened in one of my cases in a small child. Thought at first I had found my first relapse, but, after thorough examination, found to be a hydrocele. This was cured spontaneously.)

I think it useless in a paper of this scope to go into the technicalities of operative procedure to any extent. The Bassini operation with certain modifications to cover certain indications will be necessary for most all cases.

Dr. Robins, of Richmond, Va., gives us a very plausible method of treating strangulated hernias after opening down to the sac. He does not cut the constricting ring, but makes an incision through the rectus muscle above the hernia, and dilates the opening with his finger; in this manner the hernia is easily reduced.

In case of resection, you have very little trouble getting up the gangrenous bowel, and I find Mayo's modification of the Bassini very suitable for this purpose. This is done by making a more vertical incision, especially in large hernias in old people, cutting down through the skin and fascia and external oblique, and dissecting this back over the sac after opening and ligating the sac high up. Then pull the cord up, close the conjoined tendon and internal oblique to Poupart's ligament. To make the floor stronger, pull the external oblique over and fasten to Poupart's ligament, then cover the cord with the remains of the external oblique attached above Poupart's ligament.—*Virginia Medical Semi-Monthly*.

WASSERMANN'S ACCOMPLISHMENT IN THE CURE OF MOUSE CANCER.

One of the most significant investigations in the elusive problem of the cure of cancer is reported in the recent publication of that penetrating and profound thinker, Wassermann.

His discovery, like Ehrlich's salvarsan, is the result of a beautiful series of deductions. Indeed, Ehrlich's discovery of salvarsan was the direct stimulant of Wassermann's researches. Wassermann started out with the idea of attacking cancer in mice by a substance which would be effective when injected through the circulation.

According to the classic work of Ehrlich on chemotherapy, remedies are of two kinds: organotropic, and parasitropic, those which attack the invading organism without affecting, or affecting only indirectly, the body cells. To the latter class belongs salvarsan. In attacking cancer, Wassermann concluded that the remedy must be definitely organotropic, but only for a certain part of the organism, the newly formed tumor cells.

His experiments were based on observations that the metallic substances, sodium telluride and selenide, in solutions of which living cancerous tissue was suspended, were deposited only in the cancerous epithelial cells and not in other portions of the tissue, which seemed to show that we have in selenium and tellurium, substances which have a specificity for cancer cells. When Wassermann thereupon injected these metallic salts directly into mouse cancers, he noted a liquefaction of the tumor, which opened externally—a process which in some instances effected a complete cure.

In order to obtain more uniform results, he next injected these substances into the circulation, but the results were negative. Wassermann concluded that the failure was due to the fact that these metallic salts did not reach the tumor. He thereupon sought a substance which when mixed with

them, would aid in a diffusion of these elements into the organs. For reasons which are not mentioned, he selected the fluorescin dyes for this purpose. After experimenting with a great number of these, he finally selected eosin, and the curative substance which he now employs is a loose combination of eosin and selenium.

In a mouse affected with cancer, a softening of the tumor is noted after the third intravenous injection of this combination. With repeated injections, the softening continues until the tumor has become a fluctuating sac. With the fifth and sixth injection, the resorption continues until the mass entirely disappears within ten days. In large tumors, a cure does not always follow; while the softening and liquefaction of the tumor proceed rapidly, the animals sicken and die. There is no question in Wassermann's mind that death is due to rapid absorption of the disorganized tumor. Small tumors, however, disappear regularly. Wassermann has observed the cured animals for many months, and in no instance has he noted a replase.

Wassermann is very careful to insist upon the fact that his discoveries should not be immediately applied to cancer in the human subject. This is obviously the only attitude to take. Mouse cancers are biologically not the same as human cancers, and by some, especially certain English observers, the cancerous nature of the Jensen mouse tumor has been questioned. However, but whether or not Wassermann's discovery is ever applied to cancer in the human, it is of immense importance in demonstrating as a fact what had so long been fondly dreamed, but scarcely believed, that a neoplasm may be made to undergo a specific destructive process by an agency introduced into the general circulation that is harmless to the normal body tissues. It is the most distinct advance that has been made in cancer research. It is another triumph of the theories and methods of this generation's greatest medical genius, Paul Ehrlich.—E. M., in *American Journal of Surgery*.

Reviews and Book Notices

SEX HYGIENE FOR THE MALE—WHAT TO SAY TO THE BOY, by G. Frank Lydston, M. D., Professor of Surgical Diseases of the Genito-Urinary Organs and Syphilology, Medical Department State University of Illinois; member of the American Medical Association; member of the American Urological Association; member of the Society of Authors, London, England; author of *Diseases of Society, the Blood of the Fathers*, etc.; delegate from the United States Government to the Congress for the Prevention of Infectious Diseases, Brussels, Belgium, etc. 8 vo., cloth, pp. 304, profusely illustrated. The Riverton Press, 32 N. State Street, Chicago, Ill., publishers, 1912. Price, \$2.25, postage prepaid.

This is both a pioneer and eminently practical work on a most important subject by an authority. It is a most valuable addition to the important literature of the present, designed for the use of physicians, parents, teachers, adult males and older boys. The broad and comprehensive views of the author, his "deep insight into the heart of things," his forceful, practical and original thought and reasoning, and his fluent, facile and trenchant pen have produced a work that will have its influence for good on both the general public and the individual.

While supplying the place of a popular treatise on sexual hygiene, its authoritative character and the wide experience of the author make it as well a most valuable addition to any physician's book-table, and will enable him to satisfactorily answer the question so often asked by members of his clientele, "What book on sexual matters shall I read and give to my son to read?"

After a most important "Introduction," the following subjects are very practically and thoughtfully considered in a most able and logical manner: Methods of Instruction of Youth, The Life of the Wild Oats, Inspection and Regulation of the Social Evil, Physical Training and Health Building, Methods of Muscle Building, The Most Valuable Forms of Athletics, A System of Gymnastics for Amateurs, Bathing and Massage, General Principals of Sexual

Hygiene and the Maintenance of Health, Special Factors in Sex Hygiene, Anatomy and Physiology of the Male Procreative Organs, Non-Venereal Diseases of the Male Genital Organs, Diseases of the Male Function of Procreation, General Consideration of the Venereal Diseases, Local Venereal Diseases, Syphilis, A Word to Teachers and Parents and What to Say to the Boy.

Supplementary to the volume, the last chapter, "What to Say to the Boy," has been published in pamphlet form, and can be procured from the author or the publishers by teachers, parents and physicians. However, we do not hesitate to say that of the many excellent productions from the pen of Dr. Lydston, this entire volume has been of greatest interest to us, and we most cordially commend it to our readers.

HOME HYGIENE AND PREVENTION OF DISEASE, by Norman E. Ditman, M. D., of New York City, 8 vo. cloth, pp. 333. Duffield & Co., publishers, 36 W. Thirty-seventh Street, New York, N. Y., 1912.

This is a very excellent work and will render non-professional readers the best aid and assistance for the slight or incipient invalid, and will also enable one to understand when an ailment has become sufficiently serious to require expert medical attendance, or when a morbid condition is at its very incipency beyond the efforts of unskilled hands. For nurses it will give many most excellent points for use in the absence of the physician; and in many instances will enable the friends or relatives of a patient to be of very material service in the event of not securing prompt and early attention from the regular medical attendant. It will be a most excellent companion to the popular works on "First aid to the Injured," for it is so very often the case that "a stitch in time" is most valuable.

The following extracts from the author's preface show the scope of the work: "It must be made clear that the object of this book is not to displace the family doctor;

but to furnish the reader with general information regarding medical subjects."

"To those living in rural districts where the services of a physician is difficultly obtainable it is hoped that the information herein contained will be a means of saving life and avoiding unnecessary suffering. To those living less far from the trodden highways it is hoped that this work will prove an aid to the physician."

The various diseases are arranged alphabetically, making it very easy of reference. It is written plainly, in a practical manner, and devoid of technicalities so far as is possible.

The *New York Medical Journal* of March 9, ult., says of it: "Altogether this is not only a safe, but valuable book for the practitioner to recommend to his patients, particularly those in sparsely settled districts, where it may save an occasional life and can in no way diminish the physician's prestige."

HEALTH AND MEDICAL INSPECTION OF SCHOOL CHILDREN, by Walter S. Cornell, M. D., Director of Medical Inspection of Public Schools, Philadelphia; Lecturer on Child Hygiene, University of Pennsylvania; Director of Division of Medical Research, New Jersey Training School for the Feeble Minded; etc., 8 vo. cloth, pp. 614. Illustrated with 200 half-tones and line engravings, many of them original. Price, \$3.00. F. A. Davis Co., Philadelphia, publishers, 1912.

The quite recent past has shown a marked interest in behalf of the physical and mental welfare of children; and the educator and social worker of the present receive correct instruction in health matters as a part of their training. Municipal authorities have taken the matter in hand, physicians have been attracted by the benefits derived from the medical inspection of school children; and the revelation that defects of vision, hearing, the nose and throat, the teeth, and the body and mind may profoundly influence the general condition and health of the individual in that most important period of life, his or her school days, will

unquestionably have its effect and influence on the coming race.

The aim and scope of this book is to present a practical exposition of the work of medical inspection, derived from the examination of some 35,000 children, and to give physicians and teachers a survey of medical practice as it relates to children of school age.

The author has given us the results of six years' experience in the work of a medical inspector of school children, and covers in a very practical way school hygiene, personal hygiene and medical inspection. The illustrations are both realistic and interesting, as well as instructive.

BLAIR'S POCKET THERAPEUTICS: A Practitioner's Handbook of Medical Treatment. By Thomas S. Blair, M. D., Neurologist to Harrisburg, Pa., Hospital; author of "A System of Public Hygiene," "Blair's Practitioner's Handbook of Materia Medica," member of the Harrisburg Academy of Medicine, American Medical Association, etc.; 373 pages, special Bible paper; bound in limp leather; price, \$2.00. Published by The Medical Council Co., Forty-second and Chestnut Streets, Philadelphia, Pa.

This book gives a condensed intelligent discussion of the best methods of treatment, based on scientific principles, with a well-tryed, reliable formula occasionally to illustrate the application of the principles. The author gives many mode of treatment far in advance of the present text-book. An ingenious method of indicating relative dosage is to print the name of the drug in CAPITAL LETTERS for large doses, in ordinary type for medium doses, and in *italics* for small doses. An exhaustive "Table of Large, Medium and Small Doses" is given in the book.

The diseases treated are divided into related groups, each group occupying a chapter, according to the following classification (a copious alphabetical index provides for instant reference to any particular disease).

In order to get all this within the compass of a book for

the pocket, a very thin, tough Bible paper has been used, so that it is really a much larger book than it looks.

This book will be a useful pocket companion to the physician in his daily work.

THE TAYLOR POCKET CASE RECORD. By J. J. Taylor, M. D., 252 pages, tough bond paper; red limp leather: \$1.00. Published by The Medical Council Co., Forty-second and Chestnut Streets, Philadelphia, Pa.

The object of this book is to encourage more accurate observation and study of cases by supplying a convenient form for a condensed record of each important case, in pocket size, so that the practitioner can have it always with him, and so arranged that the necessary data can be written down in the briefest possible time—preferably while the examination is actually being made.

Thoroughness of examination is encouraged by means of a syllabus, detailing all the points that should be considered in each case.

The blank for the first thorough examination, diagnosis and treatment is followed by spaces for sixteen subsequent visits. The book provides for 120 cases.

Records, Recollections and Reminiscences.

ANNUAL MEETING OF THE ASSOCIATION OF MEDICAL OFFICERS OF THE ARMY AND NAVY OF THE CONFEDERACY.

Pursuant to its adjournment, May 18, 1911, at Little Rock, Ark., the Association of Medical Officers of the Army and Navy of the Confederacy will hold its fifteenth annual meeting in Macon, Ga., in connection with the General Reunion of the United Confederate Veterans, May 8, 9 and 10, prox.

The officers of the Association are as follows: President, W. F. Beard, M. D., of Shelbyville, Ky.; Vice-Presidents, Carroll Kendrick, of Kendrick, Miss.; J. B. Bond, M. D., of Little Rock, Ark.; C. J. Edwards, M. D., of Abbeville, La., and J. D. Croom, M. D., of Maxton, N C.; Secretary and Treasurer, A. A. Lyon, M. D., of Nashville, Tenn.

The Secretary will as soon as certain information can be obtained, such as the names and addresses of the chairman and Local Committee of Arrangements, the exact place of meeting, etc., mail out his accustomed annual circular letter, giving specific details for the information of those who desire to attend the meeting. This circular will be mailed on or before April 20, inst.

All indications point to a brilliant and most enjoyable reunion at the beautiful Southern City of Macon, and it is most earnestly desired that our Association shall be as well attended as possible.

Editorial.

WORK OF THE ANTI-TUBERCULOSIS LEAGUE IN NASHVILLE DURING THE PAST YEAR.

The Nashville Anti-Tuberculosis League represents the work of the health department of the Women's Federation crystallized into a permanent and definite effort to eliminate tuberculosis. The scope of the work is far-reaching, for the league was formed for the purpose of preventing tuberculosis, first, by promulgating the doctrine that tuberculosis is a communicable disease, preventable and curable; second, by instructing the public in the practical methods of avoidance and prevention; third, by visiting the consumptive poor and supplying them with the necessary materials with which to protect themselves and others against the disease, and instructing them in their use; fourth, by furnishing the consumptive poor with hospital and dispensary treatment; fifth, by co-operating with health boards and encouraging them in such measures as they may adopt for the prevention of the disease.

The money to carry on the work has come largely from the sale of the Red Cross Christmas Seals, and some income from member-

ship dues. It needs no argument to show that the spending of this money is a serious responsibility, and that the public which has contributed should receive the very best results obtainable.

The activities of the league may be classified generally under two heads, prevention and relief. The sub-heads under each of these main divisions are legion, but practically every form of activity undertaken falls under the head of relief or that of prevention. While in some instances it is necessary for the league to lay considerable emphasis on certain phases of relief, it will hardly be denied that the fundamental reason for the existence of the organized effort against tuberculosis is the prevention of the disease and that relief is incidental thereto.

Education is the first principle of prevention. During the year about eighty lectures and talks were given. These were given in the schools, colleges, clubs, settlements, churches, factories and labor unions. The response from these lectures was good, both in eliciting immediate questions and subsequent correspondence.

During the last week of April, 1911, an exhibit on Fifth Avenue was held; another during the State Fair in Cumberland Park, and another for a week at the Colored State Fair in Greenwood Park. In these exhibits there were 200 charts showing the prevalence, cause, cure and prevention of tuberculosis. There were bubbling fountains in operation, individual drinking cup machines, window ventilators, window sleeping tents, outdoor tents, milk pasteurizers, antiseptic cuspidors, material for dustless sweeping and dustless dusting, and articles for the careful consumptive to use in his home.

These exhibits in part were set up in the factories in which shop lectures were given. They were also loaned to some of the other counties to be set up at their fairs, and loaned to the State Health Department for the health train, which they sent out last fall. Several of the doctors have used parts of the exhibit when called upon to give talks. Thus the exhibit has been in almost constant use both near and far. During the year there have been distributed 75,000 pamphlets dealing with the subject of tuberculosis (45,000 printed by the city and 30,000 by the league). From the reading of these direct results have been seen.

The newspaper publicity has brought its results, too. During most of the year the Secretary has sent specific articles to the papers which they have printed, and under the Health Department Bulletin, which appeared each week in the papers, the Secretary has supplied the articles that dealt with the subject of tuberculosis.

Sunday, April 30, a large per centage of the churches responded to the appeal of the league to observe Tuberculosis as a text. Outlines and literature were furnished to each pastor co-operating. Fri-

day, April 28, the public schools and colleges of the city observed Health Day. At this time the league supplied speakers for the colleges and distributed 15,000 pamphlets to the school children which told the story about tuberculosis so that the school children could understand it.

At the last session of the Legislature the League worked for the passage of a bill prohibiting the use of the common drinking cup. The bill failed of passage, but it is hoped there will be enough public sentiment aroused in favor of such a bill that at the next session of the Legislature its passage may be secured.

One of the best pieces of legislation that the League secured was the establishing of a Tuberculosis Bureau in Nashville. The ordinance was suggested by the League and the contents of the measure submitted to the City Attorney, who drew up the law. This requires all physicians to register all cases of tuberculosis that come under their observation. With the enforcement of this provision, it will be able to ferret out all the cases and have due precaution exercised, so that others may not be affected. In 1910 there were only 143 reported cases, while there were 231 deaths.

The Tuberculosis Bureau is for the study and prevention of tuberculosis, and went into effect January 1, 1912. There is a physician at the head and two visiting nurses. The ordinance also provides that relief be given to families where the bread-winner is afflicted with tuberculosis and is under treatment. Dispensaries are to be established and directed by the head of the bureau. The expenses of the bureau will be included in the city budget.

The long education campaign carried on by the Women's Federation and the League for a hospital that should care for the tuberculosis patients of the city and county soon gained friends for the movement. The Tuberculosis Hospital, on Whites Creek Pike, four miles north of the city, was opened as a free camp for tuberculosis patients last spring. The buildings that are to house the advanced cases are now about completed, so that there will be provision for about two hundred cases. This will do much to wipe out the disease in this community, if run properly, for it will give those in the incipient stages a chance to get well, and will permit the removing of advanced cases there that are a source of infection to other families and the community.

The need of a dispensary in the treating and teaching of the poor consumptive was quite evident to the League, therefore it opened a dispensary in conjunction with the hospital of the University of Tennessee last April. This dispensary did fine work under Dr. Oughterson, Dr. Brush and Dr. McCampbell, and it was with regret that it became

necessary to close the dispensary because the University of Tennessee was removed from the city.

For more than a year the League employed a visiting nurse, whose duty it was to visit the poor tuberculosis patients in their homes and teach them how to live to protect the rest of the family from infection. It is impossible to estimate the amount of good accomplished in this one phase of the work. During the year 110 cases were visited and kept in touch with.

The League has investigated many of the unwholesome housing conditions and has sought co-operation of landlords, tenants and health departments to eliminate some of the nuisances. More adequate housing laws are needed to protect the poor of the city and indirectly the whole community. Some of the bakeries and groceries have been investigated and tuberculosis clerks removed and put under treatment.

The evil of the common drinking cup was presented to the school authorities and the park officials, and in both instances favorable responses were had. Five bubbling fountains were placed in Centennial Park and the Educational Board has promised to equip all the public schools with bubbling fountains. It is hoped this is but the starting, and that all public places will soon be so equipped that the public will be protected from infection. A couple of the progressive stores have installed individual drinking cup machines, viz.: D. Love-man & Co. and Kuhn, Cooper & Geary.

Some of the public schools have been visited and the subject of ventilation discussed.

The penitentiary was investigated and suggestions given for the care and isolation of the tuberculosis patients.

A large number of the dairies that supply milk to the city were also investigated to ascertain the ones that the League could recommend the tuberculosis patient to secure milk from and be sure that it was clean and healthy.

In all the work the League co-operated with the City Health Department and the other organizations of the city.

While they have laid stress on the preventive side of the work, they have not ignored the principle of relief. They have secured for needy families milk and eggs; provided transportation to some who wish to return to relatives; loaned and set up window sleeping tents for patients in their homes, and change of occupation to some who desired outdoor employment in preference to indoor.

Besides all this the Secretary has given many lectures in the surrounding towns. This is preventive work for, since these towns are tributary to the population of this city, it is well to reach them be-

fore they come here and teach them the care and precaution they should exercise regarding tuberculosis.

While they have not drawn any rigid line of demarcation between relief and prevention, for there will always be an overlapping, relief will always help to bring about prevention, yet the League has emphasized the educational side, for it is the opinion of those of greatest experience in the field that the function of an anti-tuberculosis movement is primarily one of education and stimulation.

CAUSES OF DEATH BY AGE PERIODS.

Bulletin 109 on Mortality Statistics for 1910, the latest on the subject has been issued by Census Director Durand. It was prepared under the supervision of Dr. Cressy L. Wilbur, chief statistician for vital statistics. The figures relate to the Census Bureau's death registration area, which on July 1, 1910, had an estimated population of 53,843,896, or 58.3 per cent of the total for continental United States. Preliminary press summaries relative to the death rates for the registration States and cities, and concerning infant mortality, were given out some time ago.

The total number of deaths in 1910 from all causes at all ages, including unknown ages, was 805,412. Of these, 154,373 were infants under 1 year of age, 33,080 were 1 year old, 14,727 were 2 years old, 8,808 were 3 years old, 6,331 were 4 years old, 217,319 were under 5 years, 17,934 were 5 to 9 years old, 235,262 were under 10 years old, 31,508 were 10 to 19 years old, 62,957 were 20 to 29 years old, 68,957 were 30 to 39 years old, 72,935 were 40 to 49 years old, 81,540 were 50 to 59 years old, 96,651 were 60 to 69 years old, 96,000 were 70 to 79 years old, 51,401 were 80 to 89 years old, and 7,974 were 90 years and over.

The Important Causes of Death:—Among the deaths numbering 805,412, from all causes at all ages in 1910, tuberculosis (all forms) was the most important cause, being responsible for 10.7 per cent of the total; organic disease of the heart followed 9.5 per cent; diarrhoea and enteritis, 7.8 per cent; pneumonia (lobar and undefined) 6.7 per cent; acute nephritis, Bright's disease, 6.6 per cent; accident (not including injuries at birth), 5.6 per cent; cancer and other malignant tumors (all forms), 5.1 per cent; cerebral hemorrhage, apoplexy, 4.9 per cent; bronchopneumonia, 3.1 per cent; premature birth, 2.5 per cent; congenital debility, 1.9 per cent; old age, 1.7 per cent; typhoid fever, 1.6 per cent; bronchitis (acute and chronic), 1.6 per cent; diphtheria and croup, 1.4 per cent; disease of the arteries, atheroma, aneurysm, etc., 1.4 per cent; suicide 1.1 per cent; and 1.0 per cent each for influenza, diabetes, paralysis without specified cause, other

diseases of the stomach (cancer expected), the puerperal state, and malformations.

Causes by Age-Periods:—For infants under 1 and 2 years of age, diarrhoea and enteritis was the most important cause of death, the per centage being 29.0, 28.9 and 12.9, respectively. Diphtheria and croup caused the largest proportion of deaths of children 3 and 4 years of age, the per centage being 16.4 and 18.2, respectively. For the entire group of children under 5 years of age, the leading cause was diarrhoea and enteritis 26.3, and for children from 5 to 9, it was diphtheria and croup 16.4. Diarrhoea and enteritis caused 24.5 per cent of all deaths among children under 10 years of age.

Tuberculosis Greatest from 10 to 50 Years of Age:—Tuberculosis caused by far the largest proportion of deaths at each 10-year age period from 10 to 50 years of age. At 10 to 19 years, it formed 24.5 per cent of the total deaths; at 20 to 29 years, 35.0; at 30 to 39 years, 28.5; and at 40 to 49 years, 18.3. At 50 to 59, 60 to 69, 70 to 79, 80 to 89, 90 and over, the per centages was 10.2, 5.1, 2.4, 0.9, and 0.4, respectively. It formed 1.6 per cent of all deaths among infants under 1 year of age and steadily increased to 5.3 at 1 year, 6.1 at 2 years, 6.9 at 3 years, 7.2 at 4 years, but forming only 2.2 for under 5 years, although going as high as 7.9 per cent in the age-period from 5 to 9 years; and 3.2 for under 10 years.

Heart Diseases Rule from 50 Years Upwards—Organic disease of the heart constituted the most important cause of death at each age-period between 50 and 90 years of age and also at the period 90 years and over. Since "old age," to which the largest proportion (27.6 per cent) of deaths at this period is assigned, is to a large extent equivalent to the statement that the cause of death is unknown. The per centage of deaths from this cause at the age-periods, 50 to 59, 60 to 69, 70 to 79, 80 to 89, 90 and over, was 13.4, 18.2, 19.8, 17.0, and 11.2, respectively. It caused 0.6 per cent of all deaths among children under 1 year of age, 0.4 at 1 year, 0.7 at 2 years, 1.0 at 3 years, 1.6 at 4 years, 0.6 of all under 5 years, 4.0 of all from 5 to 9 years and 0.9 of all under 10 years of age.

Bright's Disease and Cancer—Acute nephritis, Bright's disease, caused from 3.4 to 6.3 per cent of the deaths at the 10-year age periods from 10 to 39 years of age, but it increased to 9.5 per cent at 40 to 49 years, advancing again to 11.7 per cent at 50 to 59 years, still increasing to 12.1 per cent at 60 to 69 years, then falling to 11.1 per cent at 70 to 79 years, decreasing again to 8.5 per cent at 80 to 89 years, and finally becoming 5.4 per cent at 90 years and over. It caused 0.8 per cent of the deaths at 1 year, 1.3 at 2, 2.0 at 3, 2.2 at 4, 0.7 of all deaths of children under 5 years of age, 2.6 of all deaths

at the 5 to 9 years age-period, and 0.8 per cent of the deaths of all children under 10 years of age.

Cancer is not charged with any per centages in the age periods up to 19 years of age, but it formed 1.1 per cent at 20 to 29 years, 3.8 per cent at 30 to 39 years, 9.0 per cent at 40 to 49 years, 12.1 per cent at 50 to 59 years, 11.1 per cent at 60 to 69 years, 7.8 per cent at 70 to 79 years, 4.5 per cent at 80 to 89 years, and 2.2 per cent at 90 years and over.

Typhoid and Apoplexy—Typhoid fever caused 8.0 per cent of the deaths at the age period 10 to 19 years, but decreased to 6.0 per cent at 20 to 29 years, to 3.2 per cent at 30 to 39 years, to 1.8 per cent at 40 to 49 years, to 1.1 per cent at 50 to 59 years, there being none for the remaining age-periods. It formed 0.4 per cent of all deaths at 1 year of age, 0.9 at 2, 1.6 at 3, 2.6 at 4 and 3.8 per cent at the age-period 5 to 9 years of age.

Cerebral hemorrhage, or apoplexy, began its course with 0.7 per cent of all the deaths at the 20 to 29 years age-period, then constantly increasing to 1.7 at 30 to 39 years, 4.0 at 40 to 49 years, 7.5 at 50 to 59 years, 10.7 at 60 to 69 years, 12.1 at 70 to 79 years, but falling to 10.8 at 80 to 89 years, and 7.5 at 90 years and over.

Old Age and Accidents—Old age first showed its fatal effects with 0.7 per cent of all deaths at the 60 to 69 years period, 4.0 at 70 to 79, 13.3 at 80 to 89, and 27.6 at 90 years and over.

Accident (not including injuries at birth) claimed 0.9 per cent of all deaths among infants under 1 year, 3.4 at 1 year, 7.3 at 2 years, 9.0 at 3 years, 10.3 at 4 years, 2.3 of all in the under 5 years age period, 12.0 of all in the 5 to 9 years, 3.1 of all deaths of children under 10 years, 13.1 at 10 to 19 years, 12.9 at 30 to 29 years, 10.5 at 30 to 39 years, 8.2 at 40 to 49 years, 5.3 at 50 to 59 years, 3.4 at 60 to 69 years, 2.9 at 70 to 79 years, 3.5 at 80 to 89 years, and 5.1 at 90 years and over.

Suicide, Homicide, Etc.:—Suicide starts with 1.1 per cent of all deaths at the 10 to 19 years age-period, increasing to 2.8 at 20 to 29 years, then decreasing to 2.6 at 30 to 39 years, 2.3 at 40 to 49 years, 1.8 at 50 to 59 years, stopping with 1.0 per cent of all deaths at the age period of 60 to 69 years.

Homicide begins with 1.7 per cent of all deaths at the age period of 20 to 29 years, 1.2 at 30 to 39 years, and 0.6 at 40 to 49 years.

Pneumonia (lobar and undefined) claims 5.5 per cent of all deaths of infants under 1 year of age, 10.1 at 1 year, 10.0 at 2 years, 8.1 at 3 years, 7.5 at 4 years, 6.6 of all deaths in the age period of under 5 years, 6.3 at 5 to 9 years, 6.6 of all under 10 years, 5.7 at 10 to 19 years, 5.6 at 20 to 29 years, 7.1 at 30 to 39 years, 7.8 at 40 to 49

years, 7.6 at 50 to 59 years, 7.1 at 60 to 69 years, 6.5 at 70 to 79 years, 5.7 at 80 to 89 years, and 5.1 at 90 years and over.

Appendicitis begins with 1.0 per cent of all deaths of children at 4 years of age, 3.2 of all at 5 to 9 years, 4.7 at 10 to 19 years, 2.0 at 20 to 29 years, 1.4 at 30 to 39 years, and ends with 1.0 at 40 to 49 years.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

FORMALDEHYDE—BENZOATE OF SODA, etc., have their places, but are best not introduced into the human stomach—manifestly not into the stomachs of little children and infants. These drugs, however, are being employed to prevent gum fermentation and decomposition in some preparations of magnesia in which gum or other mucilaginous matter is used to "hold up" or suspend carbonate or other magnesias, chalk, etc., in order to present a milk-like appearance.

Certain it is that imitations and substitutes under whatever guise or title would not have appeared had not the merits of the original—Phillips' Milk of Magnesia—(a chemical combination of magnesia and pure water) received immediate recognition and adoption by the medical and dental professions.

The analysis herewith by a well known firm of chemists was made for parties, unknown to the Phillips Chemical Co., who "wished to ascertain what medium was used to suspend, or combine the magnesia and water in Phillips' Milk of Magnesia" and resulted (as will be observed) in the finding that *no suspensory agent was employed*, it being magnesia and water only, combined by a chemical process.

The following is the analysis made by Fraser & Company, 583 Fifth Avenue, New York:

Specimen: Original unopened bottle of Phillips' Milk of Magnesia

to be tested for foreign material which might aid in preventing separation.

Results: Organic matter, absent.

Remarks: The absence of organic matter, excludes, tragacanth, acacia, glycerine, soap, etc.

Analysis: shows: Magnesium hydroxide, 7.91 grams in 11 c.c. (calculated from residue left on igniting). Magnesium hydroxide, 7.61 grams in 100 c.c. (dissolved by acid HCl, precipitated and weighed as $Mg_2P_2O_7$). Magnesium Hydroxide ($Mg. (OH)_2$) 34.68 grains per fluid ounce. The total magnesium present was calculated as the hydroxide.

Conclusion: Phillips' Milk of Magnesia is a concentrated fluid preparation of magnesium hydroxide. *No evidence is obtained of presence of material to prevent separation.*

A NEW THYROID PREPARATION:—To. Dr. S. P. Beebe, Ph. D., Professor of Experimental Therapeutics in Cornell University Medical School, the profession is indebted for a new and valuable preparation of the active principle of the thyroid gland. It is a carefully standardized product, consisting of certain proteids of normal glands, extracted, purified and adjusted to a content of 0.33 per cent. of iodine. Its preparation has been entrusted to Messrs. Parke, Davis & Co., and the product is offered to the medical profession under the name of Thyroprotein (Beebe).

The selection of normal glands for use in making Thyroprotein, it may be noted, is a very important matter. Heretofore the glands of sheep have been used in medicine, and it is now known that sheep from certain parts of the country always have goitrous glands which are rich in content of proteid of the thyroglobulin type, but contain very little iodine. This fact alone accounts for much of the variation noted in thyroid therapy. Furthermore, the thyroid gland as a whole contains certain substances which appear to be not only useless, but actually harmful. In the preparation of Thyroprotein these objectionable substances are rejected.

For therapeutic administration the proteid (thyroprotein) is diluted with milk sugar and made into tablets, each of which weighs exactly two grains. These tablets are supplied in three strengths, containing, respectively, 1 per cent, 2 per cent and 5 per cent (of 2 grains) of the active medicament. The 1 per cent and 2 per cent tablets are used almost entirely in the treatment of goitre. The stronger (5 per cent) tablets are employed in metabolic disorders, as skin lesions, joint affections, myxedema, cretinism, or other conditions in which there is markedly deficient thyroid activity.

Physicians who are desirous of learning more of this new thyroid preparation will do well to send a request to the manufacturers, Parke, Davis & Co., at their home offices in Detroit or any of their branch houses, for their new booklet descriptive of the product. It bears the title "Thyroid Therapy" and contains a lot of useful information.

A MAGAZINE OF DISTINCTION—For April, 1912, *Lippincott's Magazine* offers a dainty list of contents adapted to the exacting appetite of the spring. The complete novel is a cheerful, diverting, and delightful story, called "The Stolen Woman," by Eleanor M. Ingram, whose previous novels, "Stanton Wins," "From the Car Behind," and "The Substitute," were widely read and universally praised.

Besides the complete novel, the April *Lippincott's* gives a sheaf of short stories, including "The Crucial Moment," by Charles Egbert Craddock; "Her Own Country," by Elsie Singmaster; "Kings and Men," by Owen Oliver; "Lady's Choice," by Carl H. Grabo; "A Scion of Adam," by Ella Middleton Tybout; and "The Beautifying of Mrs. Bennett," by Harold Susman.

Other features of note are a long poem by S. Weir Mitchell, an important article on "The Necessity of Passports for Alien Women," by Alexander Otis; a charming appreciation of "Uncle Remus," by La Salle Corbell Pickett; a paper on "The Prosperity of American Playwrights," by Robert Grau; and a sparkling character sketch called "A Business Interview in Virginia," by Elizabeth Maury Coombs. In the department, "Ways of the Hour," are brief, nail-on-the-head papers on "The Pity of the Sexes" (an answer to Robert Richens), by Herman Scheffauer; "The Curse of Climate," by Edwin L. Sabin; "What of the Aftermath?" by Forbes Lindsay; and "Style in Writing," by Thomas L. Mason. Edward Sherwood Meade, Ph. D., contributes another financial article, and Churchill Williams has charge of the automobile department—"Twentieth Century Travel."

Florence Earle Coates, Clinton Scollard, Aloysius Coll, Ethel Syford, and others contribute verses, and Minna Thomas Antrim stands sponsor for some pungent epigrams. Then there's "Walnuts and Wine," as usual, racy and relishable.

LISTERINE is an efficient, non-toxic antiseptic of accurately determined and uniform antiseptic power, prepared in a form convenient for immediate use.

Composed of volatile and non-volatile substances, Listerine is a balsamic antiseptic, refreshing in its application, lasting in its effect.

It is a saturated solution of boric acid, reinforced by the antiseptic properties of ozoniferous oils.

After the volatile constituents have evaporated a film of boric acid remains evenly distributed upon the surfaces to which Listerine has been applied.

There is no possibility of poisonous effect through the absorption of Listerine.

Listerine is unirritating, even when applied to the most delicate tissues; in its full strength it does not coagulate serous albumen.

For those purposes wherein a poisonous or corrosive disinfectant can not be safely employed, Listerine is the most acceptable antiseptic for a physician's prescription.

Listerine is particularly useful in the treatment of abnormal conditions of the mucosa, and admirably suited for a wash, gargle or douche in catarrhal conditions of the nose and throat.

In proper dilution, Listerine may be freely and continuously used without prejudicial effect, either by injection or spray, in all the natural cavities of the body.

Administered internally, Listerine is promptly effective in arresting the excessive fermentation of the contents of the stomach.

CONVALESCENCE FROM THE EXANTHEMATA:—The first two or three months of the year are usually characterized, in the experience of the family physician, by the occurrence in his practice, of a crop of cases of the contagious diseases of children, especially scarlet fever, measles, German measles, etc. This is accounted for by the readiness with which contagion is spread in the schools, when ventilation of the school room is the least perfect and the closer housing of school children during school hours favors the distribution of communicable diseases. As the diseases in question are self-limited in nature, expectant and symptomatic treatment, together with precautions as to isolation, etc., is about all the physician is called upon to direct. It is well known, however, that in all but the mildest cases, the adolescent subject of scarlatina, or measles, is usually more or less debilitated or devitalized, when convalescence is established. Special care should be taken to avoid the administration of any tonic or reconstituent which is likely to disturb the child's digestion, or by inducing constipation, to minimize the appetite or desire for food.

Pepto-Mangan (Gude) is the ideal reconstructive tonic for these young patients, because it is pleasant to the taste, easily tolerable by the stomach and readily assimilated by blood and tissue and promptly efficient in restoring appetite, strength, color and general well-being.

A VALUABLE TONIC IN CHILDHOOD:—It is a fact that cannot fail to interest the practitioner that one of the most useful and valuable remedies in childhood is Gray's Glycerine Tonic Comp. The reason for this is quickly found in its palatability, freedom from contra-indications and pronounced efficacy in the diseases common to childhood. Even the littlest children will take Gray's Glycerine Tonic Comp. without objection and no matter how run down and debilitated a child may be, this eligible remedy can be freely administered with no other than the most beneficial effect on the stomach and other digestive organs.

While broadly indicated in all forms of malnutrition and inanition, it is in convalescence from measles, scarlet fever, pneumonia, acute bronchitis and other affections that it accomplishes its most conspicuous benefits. Gray's Glycerine Tonic Comp. restores the appetite, stimulates digestion, promotes assimilation and quickly places the patient on the highway of health and bodily vigor. Finally, one of the great advantages of this exceedingly useful remedy is that it can always be relied upon to do all that cod liver oil can, with none of its objectionable or disagreeable features.

INFLUENZA—PERTINENT THOUGHTS:—With each succeeding visitation of this trouble, we have found it more and more necessary to watch out for the disease in disguise, and to treat these abnormal manifestations; consequently we have relied upon mild nerve sedatives, anodynes and heart sustainers, rather than upon any specific line of treatment. Most cases will improve by being made to rest in bed and encouraging action of skin and kidneys with possibly minute doses of blue pill or calomel. We have found much benefit from the use of Antikamnia & Codeine Tablets in the stage of pyrexia and muscular painfulness, and as a sedative to the respiratory centres. In the treatment of influenza or la grippe and its sequelæ, its value is highly esteemed. In diseases of the respiratory organs following an attack of la grippe, pain and cough are the symptoms which especially call for something to relieve. This combination meets these symptoms, and in addition, controls the violent movements accompanying the cough. To administer these tablets in the above conditions, place one tablet in the mouth, allowing it to dissolve slowly, swallowing the saliva.

EATING TO GET THIN:—Dr. Woods Hutchinson, the well-known physician and writer, was once called upon by a young matron with more than her share of flesh and fat. She told the doctor that she had read his article on "Fat and Its Follies," in a popular magazine, and she wanted him to help her get rid of some of her fat. After a few

preliminary questions, he handed the lady a diet list, telling her to come back in two weeks.

The good doctor's consternation can scarcely be imagined when he saw his patient gain. She looked fifty per cent fatter and weighed twenty pounds more. He was more than puzzled. His list contained no sweets of any kind, nor any fat producers; yet it was putting flesh on at an enormous rate.

"You are sure that you ate the things on this list?" the doctor questioned severely.

"Yes, Doctor," was the firm answer.

"What else did you eat?"—as a sudden inspiration seized him.

"Why, nothing but my regular meals," was the indignant answer.

—April Lippincott's.

"LAIBOSE" IS A FOOD, and often makes a special appeal to the consideration of the physician *because of its content of fat*. It contains the fat of milk perfectly combined with the protein and carbohydrate of pure whole milk and whole wheat, the entire digestible substance of the wheat (no cellulose) having been converted by a physiological process.

To give "Laibose" a source of fat is to give fat in a specially assimilated form, because of its definite association with the other food constituents—a manifest advantage.

"Laibose" is offered with an explicit statement of its contents of protein, carbohydrate, fat and ash. The percentage of each constituent when diluted with water in various proportions is shown simply for convenience.

If you have not tried "Laibose," send for circular and sample. "Laibose" was originated and is made by Fairchild Bros. & Foster, Washington and Laight Streets, New York.

WOULD YOU FORGET THE UNTOWARD EFFECTS OF CHLORAL AND THE BROMIDES?—This heading must possess much interest for those physicians who have widely employed chloral and the bromides, and who have never quite forgotten the dangerous possibilities attending their use. It is true they possess great therapeutic activity, yet occasionally evils of a greater or less degree have followed their use, particularly if it be long continued. A great many physicians have gotten entirely away from chloral and the bromides, finding in PASADYNE (Daniel's Concentrated Tincture of *Passiflora Incarnata*), the every good quality of the drugs above named and none of their bad effects. PASADYNE, for this reason, is superior to these drugs and may profitably be employed in their stead. No habit will follow its use.

It is free from the toxic properties of chloral and the bromides. If you would forget the untoward effects of chloral and the bromides, resort to PASADYNE. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

AN X-RAY RESULT.

"This X-ray machine is a marvel,"

Said a medical man to his friend;

"It is showing up many a wonder,

And serving a mighty good end.

"Last week I examined a puppy—

You know how they hang out their tongues—

Just a plain every-day kind of doggie;

I took a good look at his lungs.

"And when I developed the picture—

Now don't tell you sisters and aunts,

For it sounds just a little bit shocking—

I discovered the seat of his pants!"

—Charles Edwin Julian, in *Munsey's*.

DISCRIMINATION IN THE SELECTION OF BROMIDES:—A prominent physician recently said: "It is a mystery to me why bromide of potassium is so generally used by the profession. Its action is not near as reliable as the bromide of sodium, and better still is a combination of the bromides. For such a preparation I use Peacock's Bromides, as I know it is made of the purest salts, and the difference between its therapeutic action and that of the commercial salts is very great. I have used it for years and it is always reliable and staple. It is impossible to obtain satisfactory results in prescribing bromide of potassium, and thus I have depended on this preparation. I have also learned that it is necessary to see that my prescription for it be filled at a first class pharmacy."

The purity, uniformity and palatability of Peacock's Bromides, to say nothing of its exceptional quality, readily account for its broad acceptance as the standard bromide preparation.

BRONCHIAL COUGHS and other respiratory affections so often owe their intractability to malnutrition and delibity that vigorous tonic medication always forms one of the first and most important indications for their treatment. The results that uniformly follow the use of Gray's Glycerine Tonic Comp. in this class of affections, proves

the wisdom, therefore, of "treating the patient as well as the disease." The exceptional efficiency of this time-tried tonic in all diseases of the air passages has led to its widespread recognition as one of the general practitioner's most dependable allies in his annual conflict with winter coughs and colds. Its results, moreover, are permanent—not transitory. It reinforces, restores and reconstructs. Advertised exclusively to the medical profession. Free samples and literature furnished on application, by the Purdue Frederick Co., 298 Broadway, New York.

THE SUPERIORITY OF COD LIVER OIL IN PALATABLE FORMS—Whilst none questions the nutritional and therapeutic properties of cod liver oil, yet what avails it when its administration provokes gastric disturbance. If the gastric function be interfered with by the oil, it were better not to give it. Chemists long ago began endeavors to overcome the undesirable features of the oil, and how well they have succeeded is shown in that most palatable, and yet efficient product, Cord. Ext. Ol. Morrhuae Comp. (Hagee) which, while possessing all of the food and medicinal virtues of the plain oil, is agreeable to the most exacting stomachs, even when continued over long periods of time. Cord. Ext. Ol. Morrhuae Comp. (Hagee) as a reconstructive will prove highly serviceable in the many debilitated conditions, in which it is indicated, and the physicians ordering it will be gratified at the results produced.

THE EFFECTIVE TREATMENT OF CONSTIPATION—Gradually the profession are beginning to realize that Prunoids offer the ideal treatment for all forms of constipation traceable to functional causes.

They produce their results by stimulating normal secretions, rapidly increasing the fluid content of the feces and gently increasing peristalsis. They are extremely palatable, easily taken by even young children, and when brought in contact with the secretions rapidly disintegrate and produce their specific medicinal effect.

Probably the most gratifying feature of Prunoids is what for lack of a better term may be called their remote effect. While prompt and decided catharsis follows their administration in six or eight hours, a mild and salutary laxative influence is observed for several days after the final dose of Prunoids. Other cathartic measures act just the reverse, and after their use the bowels invariably show greater lethargy and sluggishness.

FUNCTIONAL HEART DISEASE—It has long been known that Cactina Pillets are especially serviceable in all functional disorders of the heart, as well as in certain phases of the common organic lesions.

They are safe, reliable, and do not manifest a cumulative action. Associated with digitalis, Cactina Pillets act as a valuable synergist, making possible the use of much smaller doses of digitalis in the production of desired effects.

As has been previously said, Cactina Pillets improve cardiac nutrition. Under its use the heart's action is slowed and materially strengthened. No miraculous claims have ever been made for Cactina Pillets, but in suitable cases clinical experience has repeatedly demonstrated its extraordinary value as a persuasive tonic.

JOURNALISTIC CHANGE:—*The American Practitioner and News*, of Louisville, Ky., and *The New England Medical Monthly*, of Boston, have been purchased by Dr. John W. Wainwright, of 80 Washington Square, E., New York, and will be consolidated and published under the name of *The American Practitioner*. The Louisville journal was established by the late D. W. Yandell, M. D., and *The New England Monthly* by W. C. Wile, M. D., of Danbury, Conn. Dr. Wainwright is both a capable and competent medical writer, and we wish him and his combined journal a most satisfactory success.

ELIXIR IODO-BROMIDE OF CALCIUM COMP. (Tilden's) presents in the form of a single remedy the combined features of a number of the most powerful alternatives of the pharmacopeia, such as chemically pure iodine, magnesium, potassium with sarsaparilla, stillingia, prickly ash, burdock, taraxacum, etc., not chemically united, but held in a uniform solution by an elegant menstruum which is a product of the Tilden laboratory. Each fluid ounce contains seventy-two grains of the combined salts.

PROPHYLACTIC PRACTICE:—Some think that the therapy of the future will be mainly preventative or prophylactic practice, and adherence only to those remedial agents that have proved particularly efficacious. Sanmetto, if kept at hand and always used upon the slightest manifestation of a threatening enlargement of the prostate gland, will prove prophylactic. It is particularly efficacious in prostatitis and in all inflammatory conditions of the genito-urinary tract.

IN CONVALESCENCE FROM FEVERS:—In convalescence from febrile disorders Seng imparts a desirable tonicity to the alimentary structures, coaxing back the vital functions that have been sadly exhausted and

depressed. Digestion, absorption and assimilation are substantially promoted, and gratifying improvement in the whole bodily condition follows as a natural sequence.

SANMETTO IS INDICATED IN THAT FORM OF NEUROSIS caused by disordered sexual functions, such as ovarian excitation, inflamed or irritated prostate, or from sexual excess.

Selections

ERGOT:—In the November number of the *Medical Council*, Daniel M. Hoyt treats of ergot as a therapeutic agent. How many of us in general practice think how old our ergot is, or from whence we obtain it, or what knowledge do we have that the product we are using is active, at all. For use by the mouth he thinks the most practical preparation is still the old fluid extract. It is best to obtain it in small amounts direct from some reliable manufacturer and physiologically treated. The idea that ergot is limited in its action in producing tonic contractions of the pregnant uterus is pretty generally believed, but a glance at the later literature on this subject would soon widen this view. Ergot is a powerful vasomotor stimulant acting very much as does adrenalin, namely stimulating the sympathetic vasomotor nerve endings. While its action on the circulation closely resembles adrenalin, it differs in this, that while adrenalin is extremely fugacious and almost immediately destroyed in the body, ergot acts much longer, is probably active when given by the mouth and therefore rationally indicated in conditions of failing circulation. Practically ergot is becoming more and more useful in conditions of low blood-pressure due to central depression, as in circulatory failure from acute infections fevers, in delirium tremens, surgical shock, etc. Ergot is a very old remedy in chronic types of diarrhea and deserves a renewed trial here. One of the most interesting phases of the physiological action of the active pressor substances in ergot, in the

resemblance to adrenalin, is the difference between their action on the pregnant, and non-pregnant uterus. This has been largely shown by Dale, Dixon, and Cushny, and has a most important clinical bearing. Ergot is commonly used in uterine hemorrhage from many different causes, but in functional types of dysmenorrhea it is generally thought to be contraindicated; from the experimental evidence however, it should have a fair trial in this direction, and he knows that ergot for some time back has been used empirically for this purpose. He emphasizes, first the importance of having a fresh and active preparation; second, the value of the drug as a powerful vasomotor stimulant; third its possible value as a uterine sedative.—*Cleveland Medical Journal*.

TREATMENT OF GOUT:—A. E. Taussig (*Interstate Medical Journal*, December), in a review of the recent literature of gout brings attention to several theoretically interesting and practically valuable points. Gout is no longer regarded as due to an over-production of uric acid, but rather to a faulty elimination of that substance. Uric acid is derived exclusively from the disintegration of substances contained in the nuclei of cells, whether these be contained in the ingested food or in the cells of the body which have undergone destruction. In gout the ability to handle uric acid seems diminished in every respect. The result is an accumulation of mono-sodium-urate in the blood until sooner or later the limits of solubility are passed and there is a deposit in crystalline form of the urate in the sub-cutaneous tissues or joints. This retention of uric acid may be watched in the urine, normally when a person is given a large amount of uric acid forming (purin) food, there is a prompt and rapid elimination of urates in the urine. In gout this elimination is tardy and sluggish. At only one time does the urate content of a gouty patient tend to become high, and that is during the acute attack. At this

time it may be increased to extraordinary amounts. These characteristics are very valuable in diagnosis. Taussig believes that the use of colchicum should be discontinued, as it does no permanent good and may do considerable injury to the heart. A purin free diet is the only rational treatment to be employed. The potassium salts in potato and rice make these articles valuable in the dietary. Treatment with large doses of hydrochloric acid, from 50 to 90 drops of the concentrated acid daily, well diluted, has been found of immense value in the hands of some men. Kionka and His have recently used radium emanations with wonderful success, and declare that the beneficial effects of natural waters are in direct proportion to their radio-activity. The action of the radium seems to be in its ability to change the less soluble urate salt into the more soluble, and thus facilitate its elimination.

COMBATING EPIDEMIC DIPHTHERIA:—In the *Johns Hopkins Hospital Bulletin* for October, 1911, Ford describes how he fought diphtheria in that institution.

In buildings where the presence of animals or expensive apparatus likely to be injured by the vapor of formaldehyde prevented disinfection of the structure as a whole, the separate rooms were sealed up and fumigated by the Parke, Davis & Co. formanganate briquettes or by the Du Prey candles. These rooms were kept tightly closed for twenty-four hours, and then the floors and walls were washed with soap and water and with disinfectants.

No bacteriological tests were made to determine the efficiency of the fumigation. The necessity for rapid work precluded any satisfactory observations, and it was realized that no method of disinfection is perfect. It was decided to carry out as vigorously as possible those methods which are recognized to be of the greatest value and to trust to a wise Providence that the contagion would be destroyed. Afterwards, when more time was available, with Dr. Norton's

help, a number of observations were made during the disinfection of Ward G. It was found that surface cultures or organisms like bacillus typhosus, bacillus coli, streptococcus pyogenes, and bacillus prodigiosus were killed when exposed to the gas generated by the Parke, Davis & Co. briquettes of formanganate. The organisms in the depths of the tubes remained viable, however.—*Therapeutic Gazette*.

THE WASSERMANN-EHRlich CANCER REMEDY:—Professor Ehrlich who is more fond of fantastic drug names than is the Council on Pharmacy of the A. M. A., has christened the new eosine-selenium combination, with which he claims to cure mouse cancer, "nigrosin." Concerning this remedy, Dr. Kiliani of this city, at present in Berlin, is quoted in a wireless dispatch to the *New York Times* as speaking most enthusiastically of its therapeutic possibilities. From his private observation of their work, he says, he feels safe in expressing the opinion that the discovery of this remedy is one of the most stupendous achievements of modern science. He believes that the problem of cancer treatment may be considered solved and thinks it most probable that within a comparatively short time the treatment of human cancer will enter upon an entirely new phase. The theory of the action of the remedy is that the selenium seizes upon the oxygen necessary for the rapid growth of the cancer cells, while the eosine, being carcinotropic, acts chemotherapeutically upon these cells.—*N. Y. Med. Record*.

PALPATION IN THE WARM BATH—After immersion of about fifteen minutes a great relaxation of the abdominal muscles occurs, and the result of palpating the patient in a hot bath is almost as satisfactory as under an anesthetic. It has proved useful in the diagnosis of obscure pelvic or abdominal conditions, and has the advantage of co-operation on the part of the patient.—*J. R. Keith, in The Hospital*.

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EDITOR AND PROPRIETOR

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Original Communications.

VINCENT'S ANGINA.*

BY O. N. BRYAN, M. D., OF NASHVILLE, TENN.

This condition is also known as ulcero-membranous Angina, pharyngitis ulcerosa, fetid ulcerous inflammation of the throat and ulcero-membranous stomatitis. It is a membranous inflammation usually of the throat and mucous membranes of the oral cavity, first described by Plant in 1894, but more fully described by Vincent in 1896, affecting chiefly the tonsils and caused by two invading micro-or-

*Read at regular meeting of the Nashville Academy of Medicine, April 9, 1912.

ganisms, namely a fusiform bacillus and a spirochete. Place, of Boston, says (*Boston Medical and Surgical Journal*), that "Miller, of Berlin, in 1883, first drew attention to the fusiform bacillus and spirochetes in studies on the bacteria of the mouth and described them accurately. He considered the organism now usually known as the bacillus fusiform as a spirillum, the spirillum sputigenum, and the spirochete he called spirochete dentinum. He noted that they failed to grow on any media he had tried. He found them in normal mouths, but especially if there was a marginal gingivitis, and foul teeth, but did not form any idea of their pathogenicity or association with a clinical entity.

Plaut did his first work on this in 1894 and reported two cases of ulcero-membranous angina in which he called the infecting agents Miller's organisms. Vincent in 1896 did his first work on this relative to these organisms being present in hospital gangrene, and later did work as the casual relationship of these micro-organisms to diphtheroid angina. These organisms are said by most men to be symbiotic, but Buhlig (*A. M. A.*, Vol I) has reported a case of Vincent's angina without the presence of spirochetes. Tunncliffe showed that the spirochetes are in reality not separate organisms, but represent stages in the cycle of development of the fusiform bacillus, which is rather irregular in shape, showing short bacilli, long filaments and spirals.

The bacillus fusiformis is from 6-12 microns in length and 1-5 microns in width and sharp pointed at each end. Place says: "The bacillus is strictly anaerobic, requiring media rich in animal albumens, as blood serum or ascitic fluid. There is a foul odor to the cultures and that it is uncertain whether the spirochete has been grown." Dr. Lawrence Rhea does not agree with Tunncliffe that the spirochetes are only a stage in the cycle of development of the bacillus.

The spirochete is more delicate, but about the same length and has three or four curves. The bacilli are straight and

seem to have vacuoles or clear spots in them. They are very easily stained by carbol-fuchsin, gentian violet, faintly stain by Loeffler's alkaline methylene blue, and are both gram negative. Dr. Samuel Inkkanen, of Cincinnati, says: "Both are motile organisms and should be studied under the hanging drop."

As to the manner of distribution, little is known. It is said to be more common in medical students and those working around cadavers. One author suggests the possibility of its spread as being due to the pulling of the tobacco string with the teeth that has been used by others in cigarette smokers. It occurs more frequently in males than females and is more often seen between the ages of 15 and 25, although both older and younger are subject to it. It is seen rather frequently in asylums, due to the lack of care of the oral cavity, but all cases cannot be attributed to uncleanly conditions of the mouth, because in the few cases I have seen, two have been in patients that took the best of care of both mouth and teeth. It has been known to follow the infectious diseases, and especially measles, scarlet fever and diphtheria. I remember a physician reporting to me a case of measles that had entirely recovered with the exception, at dismissal, he noticed a white patch on the mucous membrane of the mouth, which was soon followed by noma. These micro-organisms have been found by many observers in cases of noma, and Place says "facts point strongly to their causal relation." In a series of seven cases of noma seen by Crandon, Brown and Place these organisms were invariably present.

The exudate is confined usually to one tonsil, but may involve the uvula, the soft palate, the sides of the gums, the inner surface of the cheek and, Queyrat reported a case of secondary involvement of the prepuce. David G. Yates, of New York, reports a case of mastoiditis due to the micro-organisms of Vincent's angina. He states that the bacteria are troublesome in the throat, but in the mastoid cells they

follow a slow, insidious but destructive course, giving rise to but few symptoms until softening is far advanced. He does not know if they can attack the ear primarily, and in his article he quotes R. J. Reed, as having a case that resulted in purulent meningitis. J. H. Rothwell (*A. M. A.*, Vol. 54) reports three cases of bronchial Vincent's angina that simulated pneumonia. His patients had a fluid bloody expectoration, with oppression in the chest and smothering sensation. The breathing and cough resembling bronchial asthma and croup, but the sputum was fluid and bloody without the other characteristic signs of pneumonia.

The onset of this trouble is often very insidious and may not be detected until attention has been called to the foul breath. The symptoms vary according to the amount of involvement and ulceration; often they tell you they have been troubled with sore throat for many months or years. The temperature varies from 99 degrees F. to 102 F. They may complain of a bad taste in the mouth, there is a fetid odor to the breath, and they complain of some difficulty in swallowing.

The cervical glands may be slightly or markedly involved. The ulcer is usually sharp cut and deep, and is filled with a cheesy membranous material usually of a yellowish color, but may be greenish, brownish or gray, and is firmly attached after the first or second day until it separates by sloughing. The reaction is described as a slight redness of narrow margin surrounding the ulcer. On removal of the membrane the surface is often left bleeding and irregular, and the material removed has a very putrid odor. The one thing that has impressed me in these ulcerations has been that it is a deep ulceration, and the ulcer is usually rather long and does not seem to be spreading from the edges as in diphtheria. These patients are usually not very sick, but the appetite may be impaired, which is probably due to the sensitive condition of the ulcer on swallowing. The progress of the ulcer may be rapid until complete de-

struction of the tonsillar tissue has resulted; or it may be more stationary and run a much slower course. I remember seeing one case that said he had not been free from sore throat for one year at which time he had had a peri-tonsillar abscess. The marked adenitis that is seen in some cases is thought by some to be due to secondary infection and not the Vincent's organism.

Vincent's angina is of importance not only to differentiate it from other ulcerations of the mouth and throat such as diphtheria, follicular tonsilitis, syphilitic infection (mucous patches), streptococcic membranes, mercury poisoning, etc.; yet it may be associated with these infections and cause a persistence of the ulceration. I examined one specimen, furnished by Dr. W. G. Hutchison from the suppurative condition found around one tooth and it was simply loaded with both organisms. Another specimen I examined was from a man who complained of a continuous expectoration of a bloody fluid. His condition was so bad that when he would go to sleep at night it would run out, soiling the bed-clothes. He came to me, fearing he had tuberculosis, but on examination no evidence could be found, either objectively or subjectively, but the condition of his gums was very bad, bleeding very easily and spongy. The examination microscopically of a smear from his gums revealed many of these organisms together with myriads of other bacteria, so it is impossible for me to say in how many cases they are actually producing pathological lesions. This condition, as well as many of the septic conditions arising from the mouth, is probably more often the seat of trouble than we realize, and I believe we should be more exacting with our patient about maintaining, as near as possible, a clean mouth and teeth.

In obtaining a smear from the ulcer it is well to take a small curette and obtain the specimen from the bottom of the ulcer before any local application has been made, because it is often very hard to find the organisms present

in the specimen after a single application of tr. iodine even when they are abundant in the first smear.

The complications that are met with are, according to French, as follows: Earache, conjunctivitis, herpes, albuminuria, urethritis, endocarditis, pleurisy, pneumonia, and noma. Vincent also calls attention to its causal relationship, not only to hospital gangrene, but gangrene of the lung. As above stated, one man reported a case of secondary involvement of the prepuce, while another reports two cases in which there was secondary involvement of the ears with a discharge following primary ulceration of the throat. Young children are more prone to the gangrenous processes, which usually terminate fatally.

Fraley (*Jour. A. M. A., Vol. LIV*), says: "Especially is it fatal when following measles, scarlet fever and diphtheria." His description of secondary cases is as follows: "The disease in secondary cases is characterized by but little if any elevation of temperature, but with a rapid, feeble pulse, profound prostration, with excited nervous system, irritability, wakefulness, tremors, and frequently in the later stages with the appearance of the Hipocratic Facies and death in a brief period of time, from toxemia and exhaustion."

The treatment as suggested by French, and the one which I have followed, has been the cleaning of the ulcer, first, by hydrogen dioxide, then drying it and applying tr. iodine, repeating this treatment daily, at the same time giving five to ten grains of potassium iodide, internally three times daily. The hydrogen dioxide is used both on account of its cleansing properties and the high oxygen content. Place recommends the use of hydrogen peroxide to be followed by the application of chromic acid. Other applications that have been used are solutions of potassium permanganate or

potassium chlorate. At the same time patients should be given instructions about the diet and the danger of communicating this disease to others; and especial care should be taken towards keeping the mouth in a clean condition.

RELATION OF THE PRESS TO PUBLIC HEALTH.

BY COL. CHAS. SLACK, OF NASHVILLE.

Fellow Esculapians—Simple fairness suggests the prefatory statement that I am not the original prescription in this case, being a substitute, if not a dernier resort, for a more prominent newspaper man. All of the patent medicine and proprietary advertisements insist that a substitute is never so good. The eternal verity of this contention is aptly illustrated by the ancient anecdote in which the attending physician prescribed as much calomel for the old man as would lie on a dime only to be informed upon his return that, in the absence of a coin of the denomination mentioned, the quantity had been guaged by the amount that would lie on two nickels. I would not convey the impression that the capable and enthusiastic compilers of the program have provided bigger and better things for you, but suggest the more obvious and applicable lesson—that the change almost killed the patient! With this warning you should be fortified to take your medicine. Though the dose may appear to be of heroic proportions, I guarantee that it will be so diluted that it would not hurt an infant.

I am grateful for the privilege of addressing this representative body of health officers, for

“As we wander along through this vale of tears,
It is plain among other things,
That no song is so sweet to a donkey’s ears
As the song that the donkey sings.”

Your profession is notably the best educated of all the professions, characterized by its broad philanthropy and

genuine charity, administering no less to bruised and bleeding hearts than to broken bones, no less to spirits surcharged with woe than to dropsical spleens. Some of my warmest friends are ornaments of your profession, and it is easy to imagine that, under similar circumstances, all of you are just like them. Severally and compositely, you look as if you would undertake to amend any sort of a constitution by the subtle power of your art, or without restraining compunction operate for enlargement of the purse, even if a new set of tires is not an immediate necessity!

The relation of the press to public health is intimate, though not scandalous, being legitimate and proper. Apparently this subject is no more intricate than a figure-4 trap, but in its ramifications and details it is as labyrinthic and interminable as a harmony plan. It is at once a restricted and unpretentious as a soap-box dog-house, and yet as elaborate as a skyscraper tavern, with tier on tier, and new vistas disclosed to the wondering gaze whenever another door is opened. It is as expansive as an accordion; as general as that flaunting glory of the spring-time, the multi-hued Mother Hubbard, which covers everything and touches nothing. I have done no little intellectual scouting in the effort to obtain the proper view of this subject, so as to give a real clinic, which would demonstrate the practicability of an alliance between your profession and mine. At first, I suppose, I should have been appalled at the presumption of undertaking to advise those whose business it is to give advice; especially should this trepidation have been paramount on the verge of invading the cobwebbed ethics of a profession which denies itself the privilege of press publicity. Probably it would be foolhardy and useless to ruthlessly invade the sacred precincts of this ethical reserve, so defiantly hedged by custom, dignity and general observance—the justification therefor being one of the mysteries of your calling. Let one of you violate the ethi-

cal canons in this respect and immediately all of the others will fall to quoting in chorus—

“There is a story that’s old,
But good if twice told,
Of a doctor of limited skill,
Who cured beast and man
On the ‘cold water plan.”
Without the small help of a pill.

“On his portal of pine
Hung an elegant sign,
Depicting a beautiful rill
And a lake, and a sprite
With apparent delight
Was protecting a sweet dishabille.

“Pat McCarty one day,
As he sauntered that way,
Stood and gazed at the portal of pine;
When the doctor with pride
Stepped up to his side,
Saying, ‘Pat, how is that for a sign?’

“‘There’s wan thing,’ says Pat,
“‘You’ve lift out o’ that,
Which, be jabers! is quoite a mistake.
It’s trim and it’s nate;
But to make it complate,
You should have a foine burd on the lake.’

“‘Ah! indeed! pray then tell,
To make it look well,
What bird do you think it may lack?’
Says Pat, ‘of the same
I’ve forgotten the name,
But the song that he sings is ‘Quack! quack.’”

That merit is not without modesty may be granted, only to insist all the more vigorously that a medium which brings to the charlatah and the quack rich argosies of lucre would likewise reward the man of scientific worth and occasion inestimable benefit to the diseased and distressed. I do not understand how it could impair the efficiency of any

skilled physician, surgeon, or specialist, to advertise, though it is a reproach to a noble vocation when one claims to perform the miraculous and accomplish the impossible.

Possibly there is an occasional objection to your organized work by some individualist or strict constructionist, who represents the other extreme from the paternal nationalists, like Emma Goldman and Theodore Roosevelt, who want the government to do everything. Ridiculing the idea of a maternalistic government the other day, the *St. Louis Republic* claimed: "Nowadays nearly every attempted reform or movement of a political or sociological nature winds up with a proposition to let the government do it. It is begun by individuals and referred to the State or the United States. As soon as anything begins to look complex or the burden to feel heavy it is turned over as a matter of course. That is the expected thing. Well-meaning ignorance joins perverse folly in the belief that that is what government is for—to regulate everything under the sun, from clocks to livers, from lobsters to theology, from the length of sheets to the size of families, the hours of retiring to days of drinking, hatpins to arbitration, drama to steam whistles, business to dress reform, spelling to spitting, matrimony to astronomy, and from waltzing to every species of moral welfare."

Quite different from a National Mothers' Congress, whose office is best discharged within the sacred precincts of the home, is the idea of municipal, county, State and National health officers, co-operating for the scientific suppression of the malignant agencies insidiously shortening human days and destroying life. To them in a great measure must be attributed the ameliorated conditions and wider dissemination of salutary information which, within the last half century, have lengthened by twelve years the average of life expectancy in this country. That stupendous increase should disarm forever all foes of your organization. Especially should it silence all critics from within the ranks

of your own profession. Adding twelve years on an average to the life of a nation of 90,000,000 is the mathematical equivalent of prolonging for thirty-six years the existence of 30,000,000 people. Whereas, a dead man is of no interest to a doctor—after he leaves medical college—30,000,000 active men and women have eyes and ears, teeth and tonsils, nostrils and nerves, and a thousand and one maladies to which flesh is heir, requiring the constant attention of the medicine man.

Healthfulness is man's normal condition, and there may be wisdom in the practice of the heathen Orientals who compensate their medical men for keeping them in health, instead of regarding them for assisting nature to reassert itself. An ounce of prevention is worth a ton of cure, and the lengthening of life just mentioned has been the result of advancement along all lines in medical science and practice, the discovery of specifics, the education of the masses to observe sanitary rules in eating, drinking, and mode of life. The improved methods of sanitation in towns and cities have been almost in direct response to the clamorings of the press. As a rule and a class, the newspapers have been a regular Aaron and Hur Society in upholding the hands of every pure food and drug Moses. By line upon line, precept upon precept, here a little and there a little, the papers have constantly drilled into their patrons, many of whom have no other means of acquiring information, the important lessons and manifold blessings of modern medical science in all its branches.

Consider for a moment this extract from an advertisement of R. Hoe & Co.: "I am the printing press, born of the mother earth. My heart is of steel, my limbs are of iron, and my fingers are of brass.

"I sing the songs of the world, the oratorios of history, the symphonies of all time.

"I am the voice of today, the herald of tomorrow. I

weave into the warp of the past the woof of the future. I tell the stories of peace and war alike.

"I make the human heart beat with passion or tenderness. I stir the pulse of nations, and make brave men do braver deeds, and soldiers die.

"I inspire the midnight toiler, weary at his loom, to lift his head again and gaze, with fearlessness, into the vast beyond, seeking the consolation of a hope eternal.

"When I speak myriad people listen to my voice. The Saxon, the Latin, the Celt, the Hun, the Slav, the Hindu, all comprehend me.

"I am the trieless clarion of the news. I cry your joys, and sorrows every hour. I fill the dullard's mind with thoughts uplifting. I am light, knowledge, power. I epitomize the conquests of mind over matter.

"I am the record of all things mankind has achieved. My offspring comes to you in the candle's glow, amid the dim lamps of poverty, the splendor of riches; at sunrise, at high noon, and in the waning evening.

"I am the laughter and tears of the world, and I shall never die until all things return to the immutable press.

"I am the printing press."

This is your ally in fighting disease, your sword and shield and good right arm, for the press also numbers its patrons among the living rather than the dead, and rejoices in live ones. Announcement is made by the National Association for the Study and Prevention of Tuberculosis, that 1,500,000 inches a year are given by the newspapers and magazines of this country to printing articles on tuberculosis and its prevention. Gathered into one issue this would make a newspaper of more than 6,000 pages, average size.

"Publicity is the very heart of the educational campaign against tuberculosis," says Dr. Livingston Farrand, the Executive Secretary of the National Association, who adds: "Largely because of the intelligent co-operation of the press,

has the anti-tuberculosis movement in this country been able to become, as it is, the greatest organized movement of its kind in the world. When tuberculosis shall have become a rare disease, the American press may justly claim a large share in this gigantic achievement."

When the physicians connected with the Boston Consumptive's Hospital take the trouble to prepare concrete facts setting forth the actual economic loss in time and wages caused by tuberculosis in 500 cases treated in the dispensary within five years, the enormous total of \$2,000,000 is all but blazed in fiery script on the heavens by the newspapers in their effort to stimulate the requisite financial support to persistently combat a disease which levies so heavy a tax on human life and efficiency and is such a drain upon the National resources.

That the white plague will yet be conquered may be assured from the progress already made, and from reasoning by analogy in the case of smallpox.

Consult your encyclopedia and you will learn that in the days when history was young this loathsome contagion ravaged the earth, wiping out tribes and peoples. Then came the discovery of Jenner of the virtues of vaccination, pulling the stinger of the scourge, emasculating it of virulence, until those afflicted with it nowadays suffer more inconvenience from a commonplace bad cold. Forty years ago a jeweler living in a town on the Northeastern border of this State, developed smallpox after a trip to New York, and died. As the burial party passed up Main Street, ringing a bell, my childish feet hurried to carry me in closer proximity to the unusual spectacle. Twenty years later I was editing a daily paper in the same town, when a case of smallpox was reported. It was summer time, there were rumors of panic in the air, the Barings had failed, and a busted boom was gasping for breath. The real estate dealers of the community gathered at my office and prevailed upon me not to print the dispiriting news. They forgot

that a train ran out of the town every hour, and that the mails carried thousands of letters. Next day in an adjoining county, rumor had it that there were forty cases of smallpox in Bristol, and that all the contiguous territory was quarantined. Now the points in this illustration are obvious. First, the denaturizing of the smallpox by a modified back-firing. This plan has always been defended by the press, earnestly and honestly, its efficacy extolled, and the principle of prevention impressed upon the public mind. As a corollary to the main proposition, the wisdom of your boards in catching the youngsters in their early school days, and by the repeated immunizing of generations pulling the teeth of a dreaded foe. But over and above either of these lessons is the great thought that it is the province, the function, of the press to print the news. That which is of legitimate interest, whether of good or bad report, of right belongs in the columns of the paper for the proper and correct information of the patrons who are engaged in other lines of endeavor. Suppression frequently magnifies that which the sunlight of publicity would wither and blast.

Probably you notice that I am shying around this question, hesitating to plunge headlong into the middle of it and go to padding and kicking. The water may be fine, but it is a new hole to me, and I know not that it is clear of stumps and water-dogs, and other impediments and monsters. But is not no fun to stand shivering on the bank, so here goes:

Every reason that justifies your organization argues for the countenance and support of the most popular and powerful civil force that civilization has ever known. Every argument that can be advanced to interest the State and National Governments in supervising hog cholera, cattletick, equine glanders, boll weevil and pine beetle, may be multiplied in favor of authoritative investigations of and concerted opposition to epidemics and contagions that endanger the lives of the people. Hospitals and asylums, ele-

mosynary and charitable institutions, of every kind and description, find herein their common justification.

So cordial and persistent is the co-operation of the press with the health authorities that it would be an endless task to detail the work undertaken and accomplished. If Dr. Blue is cleaning up San Francisco, and stamping out the bubonic plague by exterminating rats and substituting granolithic for plank floors, the newspapers are in the vanguard. If Kansas, Washington, Baltimore, Boston and any other city or State is swatting the iniquitous and ubiquitous typhoid fly, the newspapers are offering prizes for slain and inviting the uninterested to arouse from their lethargy in order to save the lives of the innocent and unprotected. If Dr. White and the State Health Board undertake to rid New Orleans and Louisiana of the malaria and yellow fever carrying mosquito, the press constitutes the rough riders of the charge. Hookworm and pellagra campaigns are conducted in the columns of the newspapers and magazines, and the onslaughts on unsanitary conditions are perpetual pie for the editor. The gospel of the whitewash brush, the bath tub, diversified industries, and common honesty, is his everyday soul-fodder.

In less than an hour one afternoon last week I came across health editorials in four papers that are leaders of thought and moulders of public opinion in their respective localities. *The State*, of Columbia, S. C., was arguing in favor of the enactment of a law for the medical inspection of schools. The *Louisville Courier-Journal* was encouraging the fight against tuberculosis. The *Kansas City Journal* discussed the announcement by a Chicago Dean that only the physically fit could be married in his church. That most original, unique and scholarly of all the newspapers printed, the *New York Sun*, illuminated Dr. Thayer's contention that the annual occurrence of 10,000 deaths from malaria is a disgrace to the United States. These are mentioned because they struck me as being typical of the press leader-

ship and hearty assistance in all lines of the work which the members of your organization have so much at heart.

Keep your editors supplied with bulletins. Go and talk with them, giving them the news while it is yet news. Outline to them what you want to accomplish, how you expect to operate, and the particular part you would like for them to assume in the movement, and they will deliver the goods. Put your communications in the fewest possible words, plain and understandable, as free as practicable from technical terms. Do not talk to an editor about two tablespoonsful of spiritus frumenti, opt., when you mean three fingers of good corn liquor. Commune with an editor in the vernacular of the common people, reserving professional pedantry for folks with money.

I realize that I have but indifferently scratched the surface of this expansive topic. I wish I could have been more concise, more entertaining, more instructive, more luminous. I haven't the satisfatcoin of believing that I have done the best I can, which is all the more reason why I thank you for your patience and appreciation. Your work is for the betterment and happiness of the race. May you prosper therein, and have at least the rich reward of an approving conscience. Mother Nature plants within us the seed of our own dissolution—seed whose harvest never fails. From the hour of our plaintive birth-cry, we are all fugitives before the pale horse and his rider. There is an eternal warfare between the forces of life and death, and though the individual perish, as in the course of nature he does, after an unequal struggle, enduring for a comparatively few, fitful years, yet the species survives and the type is improved. After all, no matter how humble or exalted his station, or what his sphere of action, he is the hero who makes the most of his opportunity.

"This I beheld or dreamed it in a dream:
 There spread a cloud of dust along a plain;
 And underneath the cloud, or in it, raged
 A furious battle, and men yelled, and swords
 Shocked upon swords and shields. A Prince's banner
 Wavered, then staggered backward, hemmed by foes.
 A craven hung along the battle's edge,
 And thought, 'Had I a sword of keener steel—
 That blue blade that the King's son bears—but this
 Blunt thing!' he snapt and flung it from his hand,
 And lowering crept away and left the field.
 Then came the King's son, wounded, sore bestead,
 And weaponless, and saw the broken sword,
 Buried in the dry and trodden sand.
 And ran and snatched it, and with battle shout
 Lifted afresh, he hewed his enemy down,
 And saved the great cause that heroic day."

May you all emulate the king's son.

Selected Articles

POSTURE OF THE LYING-IN.*

GEORGE CLARK MOSHER, M. D., KANSAS CITY, MO.

The striking variation in method of posture of the puerperal patient which I have observed in cases seen in consultation practice indicated to me that this is a subject still unsettled. So essential in its results to the future health of the woman, it has not even received the attention to which it is entitled. Frequently specific instruction is not given by the attendant, but the management of the case is allowed to go by default.

This led to an investigation, undertaken for the purpose of obtaining a consensus of the best scientific opinion as to the posture of the lying-in- woman which revealed a wide difference in the teaching and practice in this country and

*Read before the Kansas City Academy of Medicine.

the methods at present advocated by some German obstetricians.

It has seemed to me of value to present a synopsis of the various dicta, which have been pronounced on the general conduct of the puerperium throughout the obstetrical world. I do this in the hope that a comparison of authoritative expressions may be helpful in determining the care to be given the lying-in woman at a most critical period, days immediately following her delivery.

These German authorities differ radically from our teachers in advocating most heroic treatment and assure us that those women who are kept but three or four days in the horizontal decubitus fare better than those who are longer in bed, a view not new, however, since Dr. White, 130 years ago, advanced the idea of having patients on their feet the day succeeding delivery. The following brief review may indicate the attitude of some of our German confreres toward this most important subject.

Von Alvensleben in *Zent. fur Gyn.*, September 5, 1908, gives the arguments for early rising of puerperal subjects, analyzing the reports of the Clinic at Kiel, where the patients were allowed to be on their feet from the first to the fourth day in normal cases. In his 100 observed women, the primiparæ were allowed to be up the first day for an hour; finding in these that the functions of appetite, bowels and bladder all showed improvement over the average, where the customary nine days in bed were required, subsequently cases of multiparæ were allowed the same privilege. Severe hemorrhage was not considered a contraindication of the permission. The only cases not included were those in which grave operations in delivery resulted in deep lacerations of the soft structures or in cases of severe infection. The woman who was strong and healthy was required to take gymnastic exercise in bed daily. In addition, the first day she was required to take a few steps to a chair, sitting up an hour. The second day she walked once up and down the

room. The third day this was repeated twice, and on the fifth day, she would be allowed to be up six hours, lying down three hours after dinner. When out of bed a firm abdominal binder was worn. Of 100 cases, three were up on the first day, 61 on the second, 19 on the third, 18 on the fourth day. Of these 43 were primiparæ, and 57 multiparæ. In 90 cases no untoward symptom was observed; 6 patients returned to bed on account of irregular pulse, dizziness, faintness, weakness, or bloody lochia. Ten patients had fever which was attributed to the large percentage of gonorrhea in the clinic. In 7 cases, the lochia was fetid, 2 had cystitis, and there were two cases of slight mastitis. On the fourth day, the lochia was white—on the tenth the lochia had disappeared. The muscles of the abdomen had good tonus, and the introitus had closed on the tenth day. In 9 cases (11 per cent) marked prolapsus was found, in 10 there was marked ante flexion, and in 6 retro flexion. The catheter was never required. Bowel movements were voluntary.

Wilhelm Rosenfeld (Gen. Rundschau H. 11, 1808) argues on the same line, that the routine position during the lying-in period of nine days, the patient being kept on her back is a cause for retro-deviation. He quotes gynecologists who have their patients up in three hours to urinate, and obstetricians who have their patients taking special gymnastic exercises beginning the third day, including movements of the abdominal muscles, and sphincters of anus, and vulva, morning and evenings. In patients with no temperature, the upright posture is permitted the third day for an hour or two. This it is claimed aids in involution and increases voluntary action of bladder and bowels. He leaves open the question as to whether embolism, prolapsus, or retrodeviations may follow, but claims that prolapsus will never occur unless there is a previous lesion of the pelvic floor, resulting from stretching or lacerations of the fibres. The fact that retraction of the torn ends is immediate, he claims, forbids the reunion of these injured tissues no difference how long

the patient is kept in bed. In prolapsus, an etiological factor is atrophy of the plevic floor, and long rest in bed increases the muscular weakness. Natural use of these muscles restores their tonus. His patients begin to be out of bed the third day, increasing the length of time up to the ninth day, when they are discharged. In the Vienna Lying-in Hospital, 160 women were confined in three months, and of these 102 were up the third day. In only one was there any temperature, this being due to a beginning mastitis, which was relieved by Bier treatment. On the seventh day, the height of the fundus was at the level of the symphysis, and at the ninth day it had disappeared. Those of the patients who were multiparæ asserted they felt better and were stronger than when nine days in bed.

The various experiences of the hospitals and private practitioners who have reported their cases in which early getting up was advocated is tabulated by Robert Mullerheim (*Berliner Klinische Wochenschrift*, November 8, 1909).

He at first objected to the gymnastic exercise in bed and also to the allowing of women to be up a few hours after labor and leaving the hospital at the end of the week. He has been convinced by observation that the gymnastic exercises have considerable value, but has adopted a middle course in reference to the radical change of posture. His idea is that however well the early getting up resulted in the hospital, it is of doubtful benefit if advocated among working women in their homes, as they are no sooner out of bed than they resume their work. He doubts whether weakness of muscular walls of the abdomen, prolapsus, and ptosis of the viscera, will not follow later on, the examination made on the eighth or ninth day being too early for a final conclusion.

As to the occurrence of embolism, the practice in Java is a very interesting, and valuable object lesson. There the parturient is not allowed to go to bed after delivery. Embolism as well as prolapsus, anemia and neurasthenia are

very frequent. Mechanical thromboses without fever in cases of heart and circulatory disturbance are found to occur more especially in pelvis, and legs, resulting from the slowing of the circulation. In these cases, Mullerheim asserts muscular movements and aids to increased circulation are of value. In septic thrombosis, any exercise invites serious results. Hence he concludes early rising should be carried out only in carefully selected cases.

I was particularly struck by the contrast to these German obstetricians, in a consultation case met last year in which a normal primiparæ was kept for five weeks by the obstetricians in charge, lying on her back, and not even allowed to get up to empty the bladder, for no apparent reason, that I could see, other than a persistent pink lochia.

This led me to take up the question with several of my friends among the leading obstetricians of America, to find their method of teaching and practice. From these the following quotations are of great interest and inestimable value.

Dr. Reuben Peterson says: "If the patient is a working woman, and not too much exhausted by a severe labor, I think best to have her out of bed on the ninth day. Sometimes for one reason or another this period is cut down. I do not urge early getting up, not that I think it would injure the patient, but because rest in bed is favorable to the lying-in woman. I am very much opposed to the passage of the catheter in the non-pregnant, the pregnant, or the lying-in woman. If after twelve hours, the puerpera has not passed water after every effort to have her empty the bladder, I have the nurse swing her out of bed, and place her on the commode. I have done this even when stitches have been taken. It is usually successful. I urge the patient to lie on the side as much as possible to insure drainage. I allow her to sit up in bed after a few days. I have made no observation as to the involution of patients up early or those remaining long in bed. Personally, I think subinvolution, in the ma-

jority of cases, is a matter of infection, not of position of the patient. If no infection, involution proceeds normally. If there be sepsis, involution will be delayed."

Dr. Barton Cooke Hirst says: "I have so far modified my former practice as to allow a patient to sit up in bed after child-birth, to use the bedpan, if it is impracticable for her to do otherwise. I do not allow the patient to get out of bed, because of the possibility of embolism. I had one case in which the patient got out of bed on her own responsibility about forty-eight hours after childbirth, and dropped dead on the floor alongside the bed, from embolism. While this is not common, still it is possible, and I do not think we ought to chance it."

Dr. J. Whitridge Williams writes "I have not yet been able to convince myself of the correctness of the advocate for early rising, and I believe it will soon prove a useless and possibly dangerous fad. I note that Dr. Charles White advocated it in 1780. Goodell also recommended it in the early seventies, but as the practice did not find many imitators, I imagine it was not found advantageous. It is my practice to keep the woman in bed for ten days or two weeks following labor, and then to allow her to be about on the floor on which delivery took place, until well into the fourth week. While patients are in bed no restraint is placed on their movements. They are allowed to do as they please as long as they do not get out of bed. They are allowed to eat their meals in a sitting posture. This is done whether the perineum has been injured or not.

"Concerning the commode, I do anything to avoid the catheter. Patients are allowed to sit upon the pan, and even to use the commode, if necessary, within twenty-four hours after delivery. I do not know what effect rest in bed has upon involution of the uterus, but I am now engaged with one of my assistants in studying the matter. For a number of years I have been impressed with the fact that my private patients, in well-to-do circumstances, upon final examinations four weeks after delivery,

show a much greater proportion of displaced uteri than the women of the ward who are discharged at the end of two weeks. I now have the latter class of patients return at the end of two weeks for a subsequent examination, and am not yet prepared to state whether or not the same condition will be found to exist."

Dr. Joseph B. De Lee says: "Regarding puerperæ, and their posture, usually I ask them to remain in bed for nine to eleven days, quietly on the back or side for two days, then give them the full freedom of the bed.

"In the bowel movement, and urination, they may sit on the bed-pan if the result cannot be obtained on the back. Out of bed ninth to fourteenth day, depending on labor (whether forceps, etc.), condition of lochia and fever."

The letter of Dr. Franklin S. Newell suggests that the method varies with individual cases. He does not keep the patient long in the dorsal decubitus after labor, but allows her to assume any position which she can while lying down, whether on the sides, or on her face, shifting the position as often as she desires, believing that a frequent change in position assists in drainage from the uterus, and also adds to the patient's material comfort. If able to use the bed-pan, it is approved during the first two weeks after delivery, but he prefers to have the patient raised in bed rather than to be catheterized.

Rarely he has allowed the patient up to the commode from time of delivery. Patient is kept practically flat for two weeks, the back rest is given first, and at the end of the third week, the patient is up in a chair. He believes involution goes on better in this way, than if earlier allowed on her feet. He also believes that the patient gets up better both nervously and physically, than if she is to be earlier out of bed.

During the third week, the patient is encouraged to take such exercises for strengthening the abdominal mus-

cles as she can take in bed, but the routine is varied to meet individual needs.

He finds his work dealing in an increasing degree with the unfit, and that three weeks is not too long for this type of women to rest and recuperate.

The only possible disadvantage is the question of milk supply which is more apt to prove deficient, but this he holds to be of minor importance compared with the gain in the patient's general condition, obtained by prolonging the convalescence.

Dr. Charles S. Bacon follows more closely the German method above outlined. He says: "My instructions for 'setting up exercises' in bed when ordered is generally that on the fourth day they begin and continue throughout her stay in the hospital. When allowed to get up, she is to walk across the room, and sit down, but will remain out of bed only ten minutes the first day, and twenty minutes the second day.

"The 'setting up' exercises are breathing exercises; arm flexion and extension; arm extension, foot flexion, and extension, and eventually thigh flexion and body flexion. About the seventh day, the private patient adds walk of a minute to each exercise.

After two days of walking, she is allowed to sit one to five minutes each time. The time of sitting is extended five minutes each time, until at the end of the third week, she is around as usual with the understanding that she always lies down to nurse the baby. Then she has the horizontal position twenty minutes to thirty minutes every two or three hours a day. This method I have evolved during the last ten years has been very satisfactory, favoring involution and frequently, as I believe, preventing enteropositis."

Dr. Bacon has his patient try to urinate when the bladder becomes distended, as determined by her feelings, and by the external examination of the nurse. Within ten hours, if no desire is manifested, she would be urged to

evacuate the urine even if the bladder does not seem distended. If she cannot urinate, lying down on the douche pan she may sit up, or when necessary be out to the commode or a rectal enema may be given making the urination easier. The use of the catheter should be avoided, if possible, when, however, she cannot urinate even if sitting up or in case she be very weak after labor and sitting up is not to be allowed, she should be catheterized.

Dr. J. Clarence Webster writes: "I am certain that patients recover strength less quickly when they are kept too long in the recumbent posture, I do not use the catheter until twelve or fourteen hours have elapsed after labor, and all other means have in the meantime been exhausted. The back rest is used the day after labor twice daily at first for a short period, then for a longer period and more frequently. I advise sitting up out bed for a short period the twelfth day, a few steps being taken on each occasion, the commode is to be used after the fifteenth day. While I have made no study of involution as regards the various methods of conducting the puerperium."

My own method has grown from the observation of 2,700 cases of labor seen in private practice, and in the clinic, in an experience of twenty years. I was taught as a student to have the woman on her feet the tenth day. This rule was *ex-cathedra*, and admitted of no discussion. It is no doubt of good average limit, for those mothers whose circumstances compel them for economic reasons to early resume their responsibilities regardless of future conditions of the plevic organs.

In recent years, however, I have found that all women are not given the same recuperative powers after labor any more than that all men are created free and equal, two arguments which are based on wrong premises.

The number of women who have prolapsus and retro-deviations taught me that there was a cause for the conditions. I attribute these conditions to relaxation and subinvolution which I believe is benefited if not cured, by

rest in bed during the time the lochia rubra persists. Consequently, I have made a rule years ago that the woman is to be on her feet when she can have a record of two days in which no red color is shown. This puts my average patient up about the fifteenth day. She walks to a chair, is up an hour, increasing the limit daily, as she shows her recuperation, judging by the lochia, and height of fundus. I examine her the fourth week, and caution her to lie down part of each day through the sixth week. I have had the fundus at the brim by the ninth day, and the lochia serosa at the same time, and I have had the patient in bed eighteen and twenty days. Usually she may be up half the day the third week, and out the fourth week, but I find a routine practice during the first ten days of raising the head of the bed eight or ten inches an advantage in assisting drainage without subjecting the patient to any effort or exertion as she is when on the back rest. Our American women of the better class are not to be compared in their physical strength with the German peasantry, so that conclusions drawn from hospital statistics of the latter class can not serve as a criterion for us in putting the patient on her feet. On the other hand, the modern young mother of the present generation who has had an education and an opportunity to live a normal life under direction of her advisor will be found to come through her ordeal in better shape by the adoption of the conservative rule than if she followed the heroic teachings of our brothers across the sea.

As to the change of posture in bed my own experience has led me to allow the patient to be turned on her side after the first few hours, this gives her a sense of comfort after the long enforced cramped position on her back with the knees flexed, as she was during labor. I have never been unfortunate enough to see a case of embolism following labor, but appreciate that one is never too old to learn.

A vexed question as to the lying-in has always been that

of the emptying of the bladder. My early teaching was in case of laceration requiring repair to put a binder around the knees, and always catheterize. In the light of present day methods, this plan is inexcusable from any point of view.

My students are instructed to make the catheter a last resort. The patient is to be urged to use the pan while lying on her back with various devices of pitcher douche, water poured from a height into a vessel or from a faucet to aid by suggestion the emptying of the bladder. If this expedient fails, she may be turned gently over on her face, lying across the pan to aid by gravity the expulsion effort. Then as a last resort, rather than to catheterize, she is, if the pulse is ninety or under, allowed to be helped out to the jar, which giving her the upright posture usually accomplishes the desired result.

Contrasted with my early teaching when the patient was kept on her back for voiding the urine, and the catheter passed under the sheet to avoid exposure of the person of the patient, the German practice as given by my quotations in beginning this paper are revolutionary.

The question then is one in which there has been room for great divergence of opinion throughout the history of midwifery practice. My friend, the late Dr. Theophilus Parvin, whose writings I consider to rank with those of Charles D. Meigs, and Sir Thomas Watson, as examples of medical classics, quotes Sydenham, whose wise observation taught him that those who die after childbirth the result was in many cases from getting up too soon, that was before the tenth day. The axiomatic statement of Dr. Churchill, the famous obstetrician, was that for one evil result from error in diet, he had seen ten from assuming an upright attitude or too early leaving the bed. Dr. Parvin closes his argument with the advice that it is better to keep a woman a week too long in bed rather than to be up a day too soon. The condition of the woman is a better criterion than the number of days after labor. While

sitting up in bed may be permitted for most patients during their meals after the third day, it is better that the puerpera remain in her room for at least three weeks.

So while a number of men who have favored a policy of extreme rapidity in the putting of their patients on their feet have been able to produce arguments which, if always based on facts must be very convincing as to the individual instance, still, on the other hand, the majority of the profession during all the ages has adhered to the more conservative method. I would therefore make a plea for more uniformity in teaching the subject of posture in the puerperium, basing the conclusions on observation by the obstetricians in our great maternity hospitals, as to the effect on these cases as regards involution and recuperation where the two extremes are practiced.

In the meantime, the rule to be laid down from the present state of knowledge, is that the involution of the uterus, the color of the lochia, and general condition of the individual patient must govern the conduct of the case, rather than an arbitrary time limit, based on the number of days following delivery.—*Medical Herald*.

Reviews and Book Notices

FRIENDS OF THE INSANE. The Soul of Medical Education and Other Essays, by Bayard Holmes, M. D., of Chicago, 8 vo. cloth, pp. 270, price \$1.00. The Lancet Clinic Publishing Co., Publishers, Cincinnati, O., 1911.

These excellent essays are corrected reprints from the Lancet-Clinic, with some brief additions made for completeness and clearness. While the subject matter of the book very ably and carefully considers questions of psychiatry, about one-third of the work is devoted to some very important social and educational questions, all of which are handled in a most interesting and satisfactory manner.

Dr. Holmes has been a prolific writer, but all subjects coming under the scope of his pen have been practically elucidated in a most entertaining way. The short essay on "The Septic Tank," of but little over five pages is eminently practical and should be in the hands of every country practitioner.

From the Essay on "The Soul of Medical Education" we make the following brief extract: "A good doctor is made of a well educated man who feels deeply the needs of the sick and believes himself called to live and work for their cure and the prevention of the same diseases in the well." Alas! how few *good doctors* are to be found in this day of commercialism!

Editorial.

MEETING OF THE TENNESSEE STATE HEALTH OFFICERS' ASSOCIATION.

The City and County Health Officers of Tennessee held the first sessions of their second biennial conference at the Capitol in this city, Tuesday, April 2, 1912.

The address of welcome was to have been delivered by Gov. Hooper, but on account of illness he failed to be present. His private secretary, Hon. George Taylor, read what the Governor had to say, concluding as follows:

"I congratulate you gentlemen upon the work you have accomplished for Tennessee, and condole with you upon the customary smallness of your remuneration. I bespeak for you more hearty co-operation upon the part of the entire medical profession and the general public, to the end that the laws we have may be enforced and the laws we need enacted. I trust that your visit to Nashville may be as pleasant to yourselves as it will be profitable to the public."

Dr. E. H. Jones, of Murfresboro, responded. He said in part:

"We hasten with one impulse in response to the warm greetings of this occasion. In response to the compliments passed on our efforts towards public safety, I will give you some of the advances attained and things sought for. Sanitary advances have greatedened and glorified medicine without detracting from any other branch, but have not yet reached the status we hope for. In the prosecution of our

future advancement much depends on educating the public to aid us as the guardians of health."

Dr. B. G. Tucker, Health Officer of Davidson County, and Dr. A. M. Gamble, Maryville, a member of the State Board of Health, read papers on smallpox and its eradication. Following discussion of this subject, a resolution offered by Dr. Tucker was unanimously adopted looking to measures requiring all school children in the State to be vaccinated before entering the public schools.

AFTERNOON SESSION.

The afternoon session was opened with an address by Mrs. L. Crozier French, President of the Tennessee Federation of Women's Clubs on "Public Health and Its Relation to the Clubs."

The remainder of the afternoon was devoted to the discussion of typhoid fever. The discussion was opened by Dr. L. L. Lumsden, on "Sanitation and Inoculation for the Prevention of Typhoid Fever." He spoke at some length on this phase of the disease, dwelling especially on sanitation. He was followed by Dr. William Litterer, State Bacteriologist, on "The Bacilli Carriers," and by Dr. A. W. Freeman, of Richmond, Va., on "The Control of Typhoid Fever in Rural Districts." This subject was also discussed by Dr. T. D. Wood, of Bell Buckle. An address on vital statistics by Dr. William R. Cochrane, of Knoxville, closed the program for the afternoon.

NIGHT SESSION.

At the night session of the conference President K. S. Howlett addressed the assembly on "Public Education on Disease Prevention." In the course of his speech Dr. Howlett said: "The Southern Educational Conference that is now being held in this city is of vast importance and has been much advertised, but I believe from the effects that it will have on the happiness and prosperity of the people of Tennessee that there is no meeting more important than this of the Tennessee State Board of Health and County and City Health Officers. We meet for the purpose of studying how to preserve the health of the people of Tennessee, and health is the most important thing to man. I have always heard that Americans were wasteful. People are usually more wasteful with that which they have most of, as for instance, a child with wealthy parents will die a pauper, and a child with health will die an invalid.

There are several classes of people who are careless with their health. There are men who will sacrifice their health to amass wealth, and when they have it, would be glad to give it all to regain the health that they have lost, for good health and a sound constitution are worth more than gold. Others sacrifice their health for

wealth in unwholesome and unsanitary work, children and women who are forced to work in factories in order to make a living. But the most distressing thing of all is to see the uncalled-for and unnecessary waste of health. Where there is one man who loses his health for ambition there are thousands who lose it through carelessness, indifference and ignorance. Smallpox is no longer a dreaded disease; vaccination has solved that problem. Yellow fever has been driven from our shores and diphtheria has also been conquered."

Dr. Howlett here took up the two most deadly diseases that now confront the American people—tuberculosis and typhoid fever. He read the figures taken from the United States census for the years 1900 and 1910, showing the death rate of the people of the United States and of Tennessee caused from these two diseases. He stated that out of every 100,000 population in the United States in 1909, there were 165.5 deaths resulting from tuberculosis, and 22 deaths from yellow fever.

Dr. Howlett gave an estimate of the cost of all these deaths, and also of the saving if they could be prevented. He stated that it was impossible for the health officer to prevent the diseases by his own exertions, and he then advocated an education campaign for the purpose of teaching the people the importance of health and how to preserve it.

In speaking of a means of preventing tuberculosis and typhoid fever, Dr. Howlett said: "What can be done has already been done. We have found out the causes of these diseases, but when we attempt to prevent them we are up against the ignorance, carelessness and indifference of our people. There is no officer so important to the people of Tennessee as the State Health Officer, and he should take the lead in a campaign against these diseases and educating the people to prevent them. There are several means of educating the people. Probably the most valuable way is through the newspapers. Teachers and preachers can also give valuable assistance in this respect, and I do not believe that either would decline to use their influence in teaching the people the importance of preserving health."

In concluding Dr. Howlett said that sanitary laws should be passed by the Legislature, but before the Legislature would do anything the people will have to first feel the need of the laws. He called attention to the fact that there has never been a Governor's message that touched on the importance of public health, and he said that he thought that it would be the duty of that body to educate the present Governor and all to follow.

Prof. S. A. Mynders, of Memphis, who was to have spoken on "Medical Inspection of Public Schools," was not present at the meet-

ing, and the next address was made by Col. Charles H. Slack, one of the very able editors of the *Nashville Democrat*, on "Relation of the Public Press to Health." His address is given in full in the original department of this issue of *The Southern Practitioner*.

With the close of Col. Slack's address the association adjourned until 9 o'clock Wednesday morning.

SECOND DAY—MORNING SESSION.

With a good attendance, the second day's meeting of the State Health Conference was held in the auditorium of the Y. M. C. A. Wednesday.

Dr. F. B. Reagor, of Shelbyville, was the first speaker, and presented a thoughtful address upon "Compulsory Sanitation." In the paper it was brought out that where sanitation was not voluntary upon the part of the resident by all means it should be made compulsory by the boards of health. Dr. B. W. Bagwell, of Madisonville, discussed the paper, emphasizing the facts brought out.

"Vital Statistics" was the subject of a paper read by Dr. Wm. R. Cochrane, of Knoxville. He urged that books should be kept regarding the public health and that enumeration was necessary and essential for the knowledge of the people and medical men that they might be able to work against and avoid the many forms of disease.

Dr. W. S. Leathers, State Director of Sanitation in Mississippi, touched upon the subject of vital statistics in his address upon "Hookworm," and stated that it was the business and duty of the boards of health to reduce the death rate and prevent disease. He recommended the passage of a bill providing for a bureau of vital statistics.

Others discussing the vital statistics question were Dr. Olin West, of Nashville; Dr. Stanley, of Ripley; Dr. J. H. McSwain, of Paris, and Dr. Carroll, of Henderson.

Dr. Wickliffe Rose, Administrative Secretary of the Rockefeller Sanitary Commission, gave an appreciated address on "What a County Health Officer May Do for His County." He favored the county health officer giving his time to the work of sanitation, basing his reasons upon the fact that the conservation of health and life are of first importance. He stated that the people should be especially educated in regard to proper sanitation. Dr. Rose stated strongly that county officers should be paid a salary sufficient to support themselves and their families, and to enable them to give their entire time to their work. He said also that each county health officer should compile vital statistics for his own county as a check to his work. He advocated further the inspection of schools to detect children that

are suffering from physical defects which prevent them from keeping up with their school work.

Dr. B. S. Rhea, of Lebanon, presented the report of the pellagra commission and cited a number of instances where work had been accomplished. Dr. J. C. Brooks, of Chattanooga, followed with "Some Observations on Pellagra." The general discussion on this question was under the head of "What to Do With Pellagrous Insane," and brought out many valuable facts and opinions. The State insane asylums will not take patients insane from pellagra, on the ground that it may be a contagious disease. The State Board of Health of Tennessee last year ruled that, not knowing the cause of pellagra, they could not state whether it was contagious or not; but, desiring to err on the side of safety, suggested that these cases be isolated. The general trend of opinion during the discussion of the subject was that the State should provide a special hospital for pellagrous insane. The opinions of the speakers were about evenly divided as to whether or not pellagra is contagious, equally conclusive proofs being offered on both sides of the question.

A hearty welcome to the association building was given the members of the Boards of Health by Secretary S. W. McGill, of the Y. M. C. A.

AFTERNOON SESSION.

At 2 o'clock the afternoon session was called to order by President Howlett, of Franklin, who stated that the Committee on Constitution and By-Laws was ready to make its report. Chairman W. H. Hawkins, of Greeneville, read the by-laws and constitution of the association, and after discussion they were adopted and passed. The name of the association will be "Tennessee State Health Officers' Association," annual meetings of which were fixed for Nashville each year.

At this point a motion was made by Dr. J. H. McSwain, of Paris, to the effect that the commissioned officers of the National Guard be allowed membership in the association. After being seconded a vote was taken, which resulted in the matter being disapproved, but after a discussion was indulged in by a great number of the members it was finally reconsidered and the officers made ex-officio members of the organization.

A nominating committee composed of the following physicians was appointed to report at the final meeting on the following day: Dr. Wm. R. Cochrane, Knoxville, Middle Tennessee; Dr. Olin West, Nashville, East Tennessee; Dr. J. H. McSwain, Paris, West Tennessee.

Dr. Sidney Porter, of New Orleans, La., gave a very interesting address upon "Epidemic Cerebro-Spinal Meningitis," and brought out

many clinical facts regarding the disease, its prevention and cure. A general discussion followed the paper, a large number of the doctors taking part:

From Dr. Porter's paper we take the following extracts:

"The first outbreak in the United States occurred in Medfield, Mass., in 1806 and it has been existent in that State ever since. The latest epidemic and that in which we are most interested, because it concerns the South, is the recent outbreak in Texas and Louisiana. The first cases occurred in Texas in the spring of 1911—up to the present time there have been 729 cases.

"From statistics made by close observers we must conclude at present that the only possible way of contracting the disease is by personal contact with those actually ill with the disease or with those harboring the meningococcus, but who present no clinical manifestations of the disease. The germ seemingly gains entrance to the body through the naso-pharyngeal mucous membrane. This may account for its greater prevalence during the spring and winter when the condition of the mucous membrane is so often abnormal.

"The greater prevalence of cases in the unsanitary neighborhoods in a city where meningitis exists does not class the disease as a filth disease, but it does emphasize the value of personal and community cleanliness as a preventive measure.

"The ever-present moving picture shows, where the arrangements for light and ventilation are usually so faulty, should be forced to provide systems of ventilation with exhaust fans, and if permitted to operate during the presence of meningitis in a community should be forced to fumigate daily.

"When the diagnosis of the case has been made the house should be placarded, the patient should be isolated in a quiet, well ventilated room as far removed from noise as possible and protected from too much light. All persons necessarily coming in contact with the patient should use a spray and mouth wash containing either a ten per cent solution of hydrogen dioxide or Dobell's solution. The children, of course, should not be permitted to attend school, and no persons permitted to visit the house."

"Health Officers for Smaller Cities and Towns" was the next subject discussed, Dr. W. N. Lackey, of Gallatin, reading a very interesting paper. In the course of the remarks he brought out the success which he had attained as county health officer in his home town and gave many instances in which others could also be a successful. He is one of the youngest health officers in the State and is doing a great work for the upbuilding and preservation of health in his own county. He was followed by Dr. J. A. McCulloch, of Maryville, who read a paper on "Sanitary Toilet for Smaller Towns and Cities." A

general discussion of the two subjects was taken up by the members of the association and many valuable facts brought out.

Dr. Lucius P. Brown, State Pure Food Inspector, gave quite a comprehensive paper on the work of the department of foods, drugs and hotel inspection. He gave the history of the work since its inception and showed the visitors the numerous practices by grocery-men and others that have been stopped since that time. He stated that it was the purpose of his department to take up the fight against the impure confectionery articles that are being sold, such as icings on cakes and candies, especially chocolates. The sanitary food law has been a great success, he stated, and a great benefit to the people of the State. In a very brief manner he told of the law providing that fire extinguishers should be placed in all the hotels, demonstrating with apparatus how they are manipulated.

At the close, the greater number of physicians accompanied Dr. Brown to two of the downtown hotels, where a demonstration of the new sanitary hotel law was given. All of them expressed much interest in the demonstration.

EVENING SESSION.

With Vice-President Booker in the chair, the evening session of the convention was called to order at 8 o'clock, and the auditorium of the Y. M. C. A. was filled.

Prof. S. A. Mynders, of Memphis, made a very timely address on the subject, "Medical Inspection of Public Schools." He stated that this phase of the work of the Board of Health was one of utmost importance, in that in many cases it saved the characters and even the lives of pupils in the public schools. He cited instances in which medical examinations were made upon pupils of his schools who were sluggards in their studies and stated that the results were wonderful.

Following Prof. Mynders' speech a stereopticon lecture was given by Dr. C. W. Stiles, professor of zoology, U. S. P. H. and M. H. S. He spoke from the subject of "Amoebæ," including that species known as hookworm, and during the course of the talk brought out facts hitherto unknown concerning the subject. Many slides were thrown upon the screen to illustrate the many phases of the talk and much valuable information was gathered by the physicians present. Dr. Stiles stated that in the Southern States from 10 to 40 per cent, and in some localities as much as 80 per cent of the inhabitants are infected with amoebæ. He said that the reports sent to Washington of such infection have not been exaggerated one iota, although he himself differed from other authorities in the fact that he considered

many of these amoebæ absolutely harmless and of no medical significance.

At the close of his address the association adjourned until 9 o'clock Thursday morning.

THIRD DAY.

The Tennessee Health Officers' Association in their final session on Thursday morning elected officers for the ensuing year. Dr. W. E. Hibbett, City Health Officer of Nashville, was elected President, and Dr. John B. Steele, of Chattanooga, Secretary and Treasurer. Dr. J. F. Arnold, of Washington County, was elected Vice President for East Tennessee; Dr. T. O. Bratton, of Wilson County, Vice President for Middle Tennessee, and Dr. C. T. Lowe, of Crockett County, Vice President for West Tennessee. All of the Vice Presidents are the County Health Officers of their respective counties.

The Legislative Committee, of which Dr. R. Q. Lillard, of the State Board of Health is Chairman, recommended legislation at the next General Assembly to secure medical inspection of public school children, vital statistics for every county in the State, a State hygienic laboratory for the use of the State Board of Health and more efficient county health service in Tennessee. The need of such bills being passed was brought out at length during the preceding sessions of the association. The report of the Legislative Committee was adopted unanimously.

The Executive Committee of the association for the ensuing year consists of the following men: Dr. R. Q. Lillard, Dr. W. E. Hibbett, Dr. John Steele, Dr. W. H. Hawkins, of Greeneville; Dr. J. T. Faucett, of Trenton, and Dr. P. East, of Lafayette.

The first address on the program Thursday morning was delivered by J. D. Strain, of the Nashville Anti-Tuberculosis League on "Tuberculosis: Its Prevalence and Prevention." Mr. Strain's address was chiefly concerned with the education of the people in regard to the facts about the disease. He emphasized the schools as the best place to instill this knowledge. Dr. J. H. McSwain, of Paris, spoke on "What to Do With Tuberculosis Prisoners." He stated that tuberculosis cases in the State penitentiary should be looked after and isolated, and that criminals should be thoroughly examined before being put with the other convicts.

Dr. George R. White, Live Stock Commissioner, addressed the association on "The Relation of the County Health Officer to the State Department of Agriculture in Live Stock in Sanitary Control Work." He spoke of the danger of lower animals transmitting diseases to human beings, among the diseases being typhoid fever, tapeworm and hydrophobia. Dr. William Litterer and Dr. George W. Booker, of

Knoxville, discussed Dr. White's address at length. Dr. Litterer is known locally as a specialist on hydrophobia.

"Meat Inspection" was discussed by Dr. W. B. Lincoln, of Nashville, United States Veterinary Inspector in charge. Dr. Lincoln emphasized the importance and necessity of more uniform regulations for meat inspection in small towns, as outlined by the United States Government. Dr. John R. Parker, of Gallatin, was on the program for an address on "Milk Inspection," but was unable to attend the meetings of the association.

Dr. John B. Steele, of Chattanooga, Secretary of the association for the ensuing year, addressed the doctors upon the "Fly Nuisance," dealing with the incalculable importance of the fly question in the fight against typhoid. Dr. Steele showed how the flies transmit this and other diseases by becoming covered with various excreta and carrying it into the kitchens. He stated that 95 per cent of the flies are hatched in manure piles, and urged the spring months as the most effective time for eradication.

Dr. Jones, City Bacteriologist of Nashville, ended the program with a paper on "Municipal Water Supply." He also touched the question of typhoid in speaking of the necessity of a good water supply. Dr. C. C. Hardison, of Lewisburg, led the discussion on Dr. Jones' address. The session adjourned at 1 o'clock.

It was the opinion of all who attended the meetings that great benefit would accrue from them, and that the effect of the meetings would be felt even more than last year. The speakers invited from other States and from the United States Public Health and M. H. Service expressed themselves as delighted with the sessions and the work that is being done by these county, city and State health officials.

MISS CLARA BARTON.

"Take Lella then for heroine."—Tennyson.

The Medical profession being so identified with, and interested in the Red Cross Association, the death of one of its greatest and most practical exponents, who died at her home in Glen, Echo, Md., on the morning of Thursday, April 12, ult., is well deserving notice in its periodical literature. It has been scarcely two years since the secular and medical press noticed the death of Miss Florence Nightingale, also a nonagenarian.

Miss Barton was born at Oxford, Mass., December 25, 1821, and was stricken with chronic pneumonia about a year ago. Returning from a visit to New England last fall that was thought to have improved her condition, she gradually became worse, and notwith-

standing the many congratulatory messages received from all parts of the world on attaining her ninetieth birthday last Christmas, greatly cheered and sustained her, she has passed to her rich reward, ripe in years, grand in honors justly earned in her self-sacrificing labors in behalf of suffering humanity.

President of the Red Cross Association in America from 1881 until 1904, history will recognize her as the great leader of the organization in this country; but her magnificent and powerful personality made an indelible impression upon the international organization itself through her active participation in the periodical conferences at Geneva, Rome, Vienna and St. Petersburg.

Beginning her great work on the battlefields caring for the sick and wounded during the war between the States, and extending through the Franco-Prussian war, the United States Congress acknowledged her great work in the first instance by an appropriation of \$15,000, to be used by her in searching for missing men after the great battles of the "sixties."

In 1904 the Red Cross was reorganized, President Taft (then Secretary of War), being chosen as President and Miss Barton, then far advanced in age and somewhat broken in health from exposure and hardships, retired from active connection with the organization. She resided for the last seven years at her home at Glen Echo, Md., on the banks of the Upper Potomac. During her lifetime she received many decorations and her varied experiences have been recorded in permanent form in her liberal contributions to literature, mostly relating to the activities of the Red Cross.

The passing of Miss Clara Barton, at the advanced age of a little more than 90 years, does not bring the shock and poignant regret that would have followed the death of a younger person of like popularity and distinction, but it serves to recall the great work of that noble woman in her active years and to stimulate the appreciation of her character and achievements.

Miss Barton was referred to in the press dispatches announcing her death as "the Florence Nightingale of America." This instituted a comparison and placed her fame and work in a secondary position that detracts from its real importance. Florence Nightingale's work in the Crimean war was memorable and praiseworthy—a humane achievement not in any way to be discounted, but the nearly half century of activity in the field of mercy in which Clara Barton was employed, is a record that stands for itself. There was no human suffering from war, calamity or other like cause in any part of the world from the time of the civil war, in the early sixties, until the Galveston flood in 1900 that Miss Barton was not active in providing relief. This included the Franco-German war, the Charleston

earthquake, the Johnstown flood, famine in Russia, the Armenians suffering from Turkish barbarities, the fighting and yellow fever in Cuba during the war with Spain and other minor occasions. No worker in the field of mercy has a record exceeding hers.

No other long life in the history of this or any other country was more nobly spent than that of Clara Barton. Her memory deserves a monument, but without it the story of her good deeds will live long and her fame will be embalmed in the hearts of the people, not of her own land alone, but of all the world where there is appreciation of human kindness. Well may she be

"Lamented, and with tears as just
As ever mingled with heroic dust.—*Cowper*.
"Veteres heroidas aequas."—*Ovid*.

ONE OF "THE OLD GUARD."

In a very interesting sketch of Hon. Cave Johnson, who for a number of years served the State of Tennessee in Congress, and who was Postmaster General under President James K. Polk, furnished the *Nashville Banner* of April 11 by its special correspondent at Washington, Mr. Newman, of Kentucky, who so often delights his friends and many admirers by his brilliant politico-historical scintillations over his now well-known *nomme de plume* of "Savoyard," we find the following:

"All of Mr. Johnston's sons were in the Confederate army, and one, Thomas Dickson Johnson, conspicuous for his gallantry even in the Army of Northern Virginia, is yet living, a successful physician and a leading citizen of Clarksville, Tenn. He was repeatedly wounded in battle, but survived to be included in the surrender at Appomattox.

"In 1875 Dr. Johnson received a commission in the Egyptian army and was appointed to the staff. He made a campaign in Abyssinia and was severely wounded in battle and captured. He suffered great hardships in the hands of the savages; but his life was saved by a noted chief, Ross Walda Calassie. There is something of a romance connected with the episode with which I am scarce familiar enough to attempt narration. Upon his release from captivity, Dr. Johnson was decorated by the Khedive with the Order of Medjeddie.

"Dr. Johnson is an exceptionally accomplished man and most delightful gentleman. He was long the life of a society of which John F. House, of Tennessee, and James A. McKenzie, of Kentucky, were distinguished members, and it is doubtful if any community anywhere contained an association whose conversation was more delight-

ful and more instructive than this. House narrowly escaped the Speakership of the Forty-sixth Congress, and McKenzie was the most brilliant man who held a seat even in that Congress.

"Both those remarkable men have passed beyond the veil that hides eternity from time, but "Dick" Johnson is left to reveal to this generation the manner of men they were that shed unfading glory on the South in 1861-65. Honor to them all—the living and the dead."

ANNUAL MEETING OF THE NASHVILLE ACADEMY OF MEDICINE AND DAVIDSON COUNTY SOCIETY.

After the election of officers a notable feature of the meeting on the evening of Tuesday, April 2, was an address on Louis Pasteur, by Dr. Lewis McMurtry, the eminent surgeon of Louisville, Ky., who had been specially invited for the occasion. The following officers were elected to serve the ensuing year: President, Dr. R. E. Fort; Vice-President, Dr. W. C. Dixon; Secretary and Treasurer, Dr. C. F. Anderson.

A most enjoyable occasion was the usual annual banquet at the Tulane Hotel, to which had been invited the members of the Tennessee State Board of Health Association. A delightful menu was served, made more agreeable by the beautiful floral decorations and music by the orchestra which played during the meal.

After the cigars were passed around the guests settled themselves in their chairs. President Dr. R. E. Fort, serving as toastmaster, arose and after assuring the guests that their attendance was a great pleasure to the members of the Davidson County Medical Association, he introduced the first speaker of the evening, Dr. C. W. Stiles, as the discoverer of the hookworm. The speaker indulged largely in humorous talk, much to the amusement of those present.

The next speaker of the evening was Dr. L. S. McMurtry, who having already entertained the society by his admirable address preceding the banquet, made a few brief but humorous remarks greatly enjoyed by those present. Dr. I. L. Lunsden next spoke briefly on "The People Versus the Typhoid Baccillus." He was followed by Dr. A. W. Freeman on "Der Geheimrat." Dr. J. A. Witherspoon finished the program with a short talk on "Ideals in Medicine," after which President Fort again assured the guests that their presence had accorded the medical association an honor and pleasure and hoped that all may meet again soon.

A NEW AND PROMISING AGENT FOR THE TREATMENT OF RHEUMATISM:—An announcement that is certain to cause widespread interest among the profession is being made in a large number of American medical journals in behalf of Rheumatism Phylacogen. The

new product is a bacterial derivative originated by Dr. A. F. Schafer, of California. The term "Phylacogen" (derived from two Greek words—the equivalent of "a guard" and "to produce") means "phylaxin producer," phylaxin being a name that is applied to a defensive proteid found in animals that have acquired an artificial immunity to a given infectious disease.

Rheumatism Phylacogen (Schafer) is a sterile aqueous solution prepared from a large variety of pathogenic bacteria, such as the several staphylococci, *Streptococcus pyogenes*, *Bacillus pyocyaneus*, *Diplococcus pneumoniae*, *Bacillus typhosus*, *Bacillus coli communis*, *Streptococcus rheumaticus*, *Streptococcus erysipclatis*, etc. The basic Phylacogen is a "polyvalent" preparation, since the organisms are obtained from cultures made at frequent intervals and from a variety of sources. To this basic material is added an equal amount of the filtrate obtained by similarly growing and treating the *Streptococcus rheumaticus* of Poynton and Paine. The product is indicated in all cases of rheumatism, acute and chronic, not due to gonorrheal infection. It is marketed in sealed glass vials of 10 Cc. capacity and may be administered subcutaneously or intravenously, the former method being preferred except in cases in which quick results are demanded.

Rheumatism Phylacogen, which is the first of a series of phylacogens originated by Dr. Schafer and about to be offered to the medical profession, has been thoroughly tested clinically in many of the leading hospitals, as well as by competent specialists and other scientific men in various parts of the country, and is said to have shown brilliant results in a large percentage of cases. With the co-operation of Dr. Schafer, and in accordance with his methods, it is prepared by Parke, Davis & Co., in whom are vested the sole rights of manufacture and sale. Physicians who are interested in this new treatment for rheumatism, and every general practitioner ought to be, will do well to get descriptive literature on the subject. It may be obtained by addressing the manufacturers at their principal laboratories in Detroit, Mich. Ask for the "Rheumatism Phylacogen pamphlet" and mention this journal.

AFTER SCARLET FEVER AND MEASLES:—After the acute diseases of childhood there is no remedy that will do more to hasten convalescence than Gray's Glycerine Tonic Comp. Children are particularly responsive to the tonic effects of "Gray's" and it is always gratifying to see the prompt improvement in the appetite, digestion and general nutrition that follows its administration. The palatability and clean bitter taste of "Gray's" make it exceptionally acceptable to children.

A COMPANIONABLE MAGAZINE:—The May issue of *Lippincott's Magazine* is both refreshing and invigorating, well suited to the season of reviving energies. The complete novel (salient feature) is "Their Great Inheritance," a delightful story of Pennsylvania-German life, by Elsie Singmaster, who has already made a name for herself along these lines with her clever short stories.

Another important contribution is the first of a series of three hard-hitting articles by Hubert Bruce Fuller, on "How Congress Squanders Our Money." This deals principally with the army and navy expenditures and the pension appropriations.

Among the short fictions are Newman Flower's "The Little Band in the Pines," a war story; Norma Bright Carson's "From the Land of the Unborn," a sketch suggested by Maeterlinck's "The Blue-Bird"; George Allan England's "Primavera," dealing with the spring of the year, and of life; Matthew Baird's "The Bloomsburys' Trip," with its lesson for Bridge-lovers; Daisy Vanderbark's "The Unexpected Express Package"; Richard J. Walsh's "Two Halves of a Check"; Eugene Boylan's "The Black Sheep's Fold"; and Thomas L. Masson's "A Christian Spirit." "A Little Tragedy" is a rather remarkable sketch by Margaret Louise Loudon.

"Walnuts and Wine," the humor department, is full of clever things by both known and unknown humorists. A number of other interesting articles are found in this issue.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

PLASMODIAL ANEMIA:—In spite of the modern theory of the etiology of malaria and malarial affections (mosquito-borne infection) this plasmodial disease continues to be rife in certain sections of the country and bids fair to be, like "the poor," "always with us."

Every physician of experience appreciates the principles which

should guide him in the treatment of the various acute manifestations of paludal poisoning, i. e., the destruction of the plasmodial hosts which have invaded the blood and which, if not eliminated, consume and destroy the red cells, the vital element of the circulating fluid.

When the purpose has once been accomplished the patient is but partly cured; the damage done to the red corpuscles must be repaired and the vitality of the blood restored, if re-infection is to be avoided. If there is any one condition in which direct hematinic or blood-building therapy is positively indicated, it is in Post-Malarial Anemia. As soon as the febrile period has passed, iron, in some form, should be given in full dosage. Pepto-Mangan (Gude) constitutes the ideal method of administering this essential blood-building agent in this as well as in any anemic condition. Both the iron and manganese in Pepto-Mangan are in organic combination with peptones and are therefore easily and promptly absorbed and assimilated without causing digestive derangement or producing constipation.

CAMPHO-PHENIQUE LIQUID is the *Ideal Emergency Burn-Dressing*. In severe burns where medical attention is necessary, the physician will find that **CAMPHO-PHENIQUE** fully meets the requirements. Its anæsthetic properties relieve the pain almost instantly. Healing is quick and sure in all cases. To get the best results, use **CAMPHO-PHENIQUE** one part and olive or sweet oil three parts, applying same to the wound as often as necessary with absorbent cotton and the usual bandages.

In mild cases it can be used pure. Best results will follow when reduced with olive oil.

GRIPPAL COUGH-LARYNGHITIS—BRONCHITIS—In these affections, anti-kamnia is indicated for two reasons: First, because of its absolute power over pain; at once removing this element of distress and placing the whole system in the best possible condition for a speedy recovery. And second, because of its power to control inflammatory processes, lowering the fever by its peculiar action on the nervous system. Codeine is strongly indicated because of its power as a nervous quietant, often quickly and completely controlling the cough. In nervous coughs, irritation of the throat, laryngitis, bronchitis and phthisis, where the cough is altogether out of proportion to the amount of expectoration, Antikamnia-Codeine tablets will give prompt satisfaction. In fact, in cases of nervous coughs, irritable throat, so commonly attendant upon influenza and la grippe, as well as in sub-acute laryngitis, and slight bronchitis, this tablet alone will often so control the cough that the disease rapidly subsides. This is not strange when we remember that nothing could keep up this irritation

more than constant coughing. In the more severe cases of bronchitis and in phthisis, the patient is not only made more comfortable, but the disease itself is brought more directly under control by checking the excessive coughing, relieving the pain and bringing the temperature down to the normal standard.

CAMPHO-PHENIQUE POWDER is *Germicide* and *Antiseptic*. Indicated in infectious processes, both surgical and medical. Non-irritating and healing in major and minor operations, also for all lacerated or contused wounds, carbuncles, boils, chronic ulcers, chancroids, acute and chronic suppurative processes.

TENNESSEE STATE MEDICAL ASSOCIATION.

The seventy-ninth annual meeting of the State Medical Association held in Chattanooga, April 9-11, was a most enjoyable and entertaining one. Quite a number of valuable and instructive papers were read and with the able discussions thereon were greatly enjoyed by those present. A full report of the meeting, together with the papers and discussions, will appear in forthcoming issues of the Association Journal, which we are greatly pleased to know will be continued under the management that has proven so satisfactory during the past year.

The following officers were elected for the ensuing year: President, Dr. O. Dulaney, Dyersburg; Vice-Presidents, from West Tennessee, Dr. George R. Livermore, Memphis, from East Tennessee, Dr. W. J. Matthews, Johnson City, from Middle Tennessee, Dr. Zeb Shipley, Cookeville; Treasurer, Dr. W. C. Bilbro, Murfreesboro; Secretary, Dr. Perry Bromberg, Nashville; delegates to the American Medical Association, Drs. A. B. Cooke, Nashville; S. R. Miller, Knoxville; alternates, Drs. Scott Farmer, Cookeville, and George R. West, Chattanooga.

Nashville was selected as the place for the next annual meeting, April 8-10, 1913.

THE CONSERVATION OF NERVOUS ENERGY:—The choice of a remedy that will prevent a continued dissipation of nervous energy, is a matter of large importance, for there is a possibility, in one's eagerness to use a drug which is therapeutically active, but insidious in its effect, to select one that is habit-forming. If this happens, no substantial gain has been made. A preparation which possesses potent therapeutic powers, and yet is free from danger, is *PASADYNE* (Daniel's Concentrated Tincture of *Passiflora Incarnata*). It exerts a markedly calmative influence in all exalted states of the nervous system, and is clearly indicated when the need for agents of its class

arises. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

WELCOME TO THE EDITORIAL GUILD:—Dr. Geo. E. Malsbary, formerly of Cincinnati, but for two years past residing in Los Angeles, Cal., has taken charge as editor and publisher of *The Southern California Practitioner*. Having already obtained prominence as a medical writer by his recent excellent works on "*The Diagnosis of Syphilis*," "*A Text-Book on the Practice of Medicine*," and numerous monographs on various subjects, he enters the editorial field with a facile and experienced pen. He will have as associate editors, Dr. Walter Lindley, founder of our excellent contemporary and his immediate predecessor, together with other prominent medical men of Southern California. We wish him and his associates all possible success.

AFTER THE BABY COMES:—The weakness and debility which usually follow childbirth are all too prone to linger. The burden of lactation is very apt to further prolong convalescence and increase the liability to all manner of complications. In such cases, vigorous tonic treatment is urgently required and the resulting reinforcement of vital processes promptly changes the situation.

Gray's Glycerine Tonic Comp. is peculiarly serviceable as a reconstructive and restorative for the nursing mother, not only because of its notable efficacy in promoting functional activity throughout the body, but especially because of its freedom from all contraindications. Thus it can be freely administered both during pregnancy and thereafter without a fear of its producing any but the most substantial benefits to the offspring as well as to the mother. Few remedies are more effective for increasing the lacteal flow than "Gray's," inasmuch as it exerts its influence through improving the whole bodily nutrition rather than by stimulating a single function at the expense of the rest of the body.

EUGENICS:—The undersigned are engaged in a study of heredity of hare lip, cleft palate and associated malformations of the oral cavity. We solicit correspondence with physicians who can supply histories of families more than one member of which has an oral defect. Such data will be held as strictly confidential and will be used solely to aid in the solution of a problem which is not only of scientific but of humanitarian interest. C. B. Davenport and W. F. Blades, Eugenics Record Office, Cold Spring Harbor, Long Island, N. Y.

A JUST TRIBUTE AFTER SEVENTY YEARS:—At the University of Pennsylvania, Philadelphia, a handsome gilt bronze medallion was unveiled Saturday, March 30, 1912, which justly belongs to this Southern doctor, memorializing Dr. Crawford W. Long, of Jefferson, Jackson County, Ga., for his discovery and the first use of ether as an anæsthetic for surgical purposes. The first operation under this discovery was for the removal of a tumor from James A. Venable, March 30, 1842. Other eminent physicians have claimed the honor of this discovery, averred to be the greatest single achievement in the world of medicine. Dr. Long graduated from the University of Pennsylvania in 1837 and died in Athens, Ga., in 1878.

THE THERAPEUTICS OF RACHITIS:—Among remedial agents promising benefit in rachitis, codliver oil, as exhibited in Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is worthy of prominent mention. It not only has abundant value as a tissue nutrient, but its contained phosphorus makes it particularly potent in this condition. There is an urgent indication for this latter agent, which is admirably met by the administration of Cordial of the Extract of Cod Liver Oil Compound (Hagee).

"THAT PROPER ELIMINATION is of the utmost importance to the well-being of mankind is amply proven by nature's elaborate system of eliminative and detoxifying organs."

Tongaline by its highly stimulating action on the liver, the bowels, the kidneys and the pores is the "ideal eliminative" and will promptly and thoroughly expel all poisons which have accumulated in the system as the result of sluggish excretory organs.

A POSSIBLE DERIVATION:—"Words are terribly funny things, aren't they," said Mrs. Jones. "Take the word gargle—how on earth do you suppose they ever got that?"

"Very simple, my dear," said Mr. Jones. "Just look at yourself in the glass sometime when you gargle, and then look at a gargoyle, and you'll see."—*Harper's Weekly*.

ELIXIR IODO-BROMIDE OF CALCIUM COMP:—After a most gratifying and satisfactory use of this excellent preparation of The Tilden Co. for more than thirty years, we can heartily commend it as a splendid alterative. Combined with Hydrarg. Bi-Chlor. it is *par excellence* a most admirable aid in the conquest of syphilitic infection.

PHILLIPS' MILK OF MAGNESIA

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An Efficient Antacid and Corrective.

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Original Communications.

THE CARE AND TRAINING OF FEEBLE-MINDED CHILDREN.*

BY MRS. CORA BRISTOL-NELSON, SUPT. SOUTHERN PHYSIOLOGI-
CAL SCHOOL, MURFREESBORO, TENN.

To undertake to exhaust a subject as vital as the care and training of the feeble-minded in five short minutes is impossible, but I hope to arouse some interest, at least, in this sadly neglected class—please bear in mind at the outset of this paper that the discussion is on the feeble-minded,

*Read at first meeting of the Southern Sociological Congress, at Nashville, Tenn., Tuesday, May 14, 1912.

a class that readily responds to training, and not on the hopeless idiot.

As education spreads in the masses, it also descends lower in the strata formerly devoted to ignorance and inferiority. It has been but scarce seventy-five years since the first systematic effort was put forth to develop the subnormal child, first in France by the great Dr. Seguin, physician and teacher, who gave his life's best efforts to the training of children retarded mentally.

His efforts were soon followed by others in Switzerland, Germany, Great Britain and in a short time in the New World. In 1848 the Legislature of Massachusetts issued a grant of \$2,500 to establish an experimental school for the training of the feeble-minded; the first in the United States. From this the work has steadily grown. Dr. Seguin migrating to this country in 1850, adding his experience and influence to the movement.

It has been the error of the ages, that the feeble-minded are absolutely void of mental powers; that their brain is lacking; for such is not the case. Feeble-mindedness is not the result of deficiency or malformation of the brain or nervous system, nor in general is it accompanied by any serious deformity of the body; these ideas though very generally accepted, have no foundation in fact. Feeble-mindedness is simply an arrest of mental development.

What we desire to discuss today is the best possible methods of illuminating these darkened intellects. Our sympathies go out to the blind child, whose vision of the world has been forever cut off; but here we have the child, who seeing, yet sees not; the child with the darkened intellect, whose windows have never been opened to the beauties in nature, or to see and discriminate between forms and colors.

Our heart aches for the deaf and dumb child; but here we have the little ears closed to all God's music, often failing to heed the voices of loved ones about him, and dumb so far

as his ability to convey thought or interest in his affairs to his playmates.

We grieve over the little cripple, who must walk through life on a crutch, or spend his days in a misshapen body; but here we have the little limbs stiffened and cramped by the lack of co-ordination of mind and muscle.

"God help the imbecile, more dark their lot than dumb or deaf, cripple or the blind; the closed vision theirs, their page of life a blot."

And this, my friends, is the class we are neglecting in the South today. The State has loosed its purse strings and opened wide its doors to the deaf and dumb, blind and insane; but no door has been opened, no purse string loosed, no helping hand offered to these little ones, who must go through life babes, although full grown.

Dr. F. M. Powell in his report to the National Bureau of Charities in 1898 states there were, at that time, 24 public institutions in the United States. This number has somewhat increased since then, but outside of Kentucky and Virginia nothing has been done in the South except the small private school at Murfreesboro, Tennessee, of which I have the privilege of being Superintendent.

In the statistics of 1910 we find in the Southern States the appalling number of 68,040 feeble-minded persons, and 7,282 in the State of Tennessee alone.

Is it not worth while for us to do something for this great body of unfortunates? You ask: What can be done? And will it be worth while to start this new drain on the State when the demands are already so great? I can assure you we could never make a more economic investment. Think of the relief to the mother to know that her afflicted child, whom she does not, cannot understand, is being gently and kindly trained in useful occupations and instead of a care becomes a useful companion.

Think of the relief to society to have that great throng of near 70,000 feeble-minded persons cared for, educated

and trained; many of them to earn their own living, all to be benefited, and at least protected from a life of vice and shame, which so often befalls them now. We do not expect or propose to create or supply faculties absolutely wanting; to bring all grades of the feeble-minded to the sane standard of development and discipline; nor to make them all capable of sustaining creditably all the relations of a social and moral life, but rather to give to dormant faculties the greatest possible development and to direct these awkward faculties into channels of usefulness controlled by an aroused and disciplined will. Although most of them may never be capable of competing on equal terms with their normal fellows or of managing themselves or their affairs with ordinary prudence, yet many of them may be brought to normal mindedness, all to happier and more useful lives. Habits of honesty and truthfulness, courtesy and usefulness, neatness and order—cheerful obedience and patient industry may be instilled, and instead of helpless burdens on the home or State, we shall have useful and companionable boys and girls prepared to fill their little niche in life, proving a pleasure to their caretakers rather than a burden.

Every State, represented today in this great Sociological Congress, should in the near future organize some serious and systematic effort for the development of their feeble-minded. I say it is a blot on the fair name of the chivalrous South to let this class of unfortunates be harbored in our poorhouses and insane asylums, and often because they are misunderstood incarcerated in our jails with hardened criminals.

The Great Christ said: "Inasmuch as ye have done it unto the least of these my little ones, ye have done it unto me." And I know this great heart throbs with gratitude over every little hand trained to usefulness, every eye trained to see the beauties of this world, every ear trained to hear its sounds and voices, every tongue trained to express

the thoughts of an awakened brain, every life that is made fuller, happier and more useful.

My friends, I wish I had the power to arouse in you the zeal that I feel for this work; I wish I could make you see the great need of public institutions for the care and training of these afflicted ones; I wish I could bring before you letters received almost daily by me from heartbroken mothers all over the South, begging me to do something to brighten the otherwise hopelessly darkened lives of their little ones. O, you men and women! You representative men and women, who have come up from all parts of our Southland to discuss, plan and solve great social problems, I would that I had the power to say some word that would so burn into your hearts that you would never rest until every State in the South, yea, every State in the Nation, had thrown open its doors for the care, protection and development of the feeble-minded.

God has called me in a peculiar way to minister to these "the least of His little ones," and in doing this, I find my greatest happiness.

"If I can let into some soul, a little light,
If I some pathway, dark and drear, can render bright,
If I, to one in gloom, can show the sunny side,
Tho' no reward I win—I shall be satisfied."

FECAL RETENTION.

BY WILLIAM FRANCIS WAUGH, A. M., M. D.

Head of Department of Therapeutics, Bennett Medical College, Loyola University, Chicago, Illinois.

Many elderly men die from the direct effects of fecal accumulations of the bowels. They acquire habits of regularity in resorting to the toilet, and have a bowel movement daily at the accustomed hour. They suffer but little with the symptoms that follow fecal retention in other men, and

consider themselves fairly healthy; enjoy their lives, their pipes, an occasional little nip, and especially their meals.

Meanwhile the daily stools are insufficient to fully evacuate the large bowel and feces accumulate there. Some day discomfort comes, followed by dull, griping pains, diffused and shifting, but with tenderness developing at one spot, usually the cecum, the sigmoid flexure or the transverse colon. Sometimes the collection is so large that the abdomen is visibly misshapen. The ureter may be compressed, the urine collecting in it and the pelvis of the kidney, until a peculiarly unbearable pain results.

In other cases an inflammation of the bowel develops, usually mistreated by opiates, from which many die. Others emerge from the sick room thin and haggard, after a week of suffering whose imprint on their countenance is evident. Years seem to have been added to their age by this week's agonies.

Many such cases go to the operating table, and are known conventionally as appendicitis! There may be enough involvement of this troublesome vermiculation to give color to the accusation, but many an appendicitis could more justly be termed plain constipation, obstipation, or fecal impaction.

Are such cases common? The surest way to realize a fortune is to get up some new name for the old cathartic, and a catchy scheme of advertising it. It may be merely a solution of salts in water, marketed as coming from a spring located at convenient remoteness and inaccessibility; or just plain colocynth, gamboge, jalap, aloes, scammony, podophyllin—toss up for a selection of three, chuck in ginger and find a new name. Make that name familiar and lay back to enjoy your profits. They'll sell themselves. Bile Beans, Little Devils, Liver Ticklers—anything will do, provided it is new.

The reason they all succeed is that most people feel better after a cathartic. Between the physic habit and the

constipation habit, it is a toss up. Very, very few care to study their own cases, and to regulate their habits by the peculiarities of their own systems, eating, drinking, exercising, with a view to securing the best attainable results in health, happiness, usefulness and longevity. But this self-study, under the doctor's direction, is the only thing that gives really good results beyond temporary relief.

Take such a patient in a paroxysm; stop all food for a day, give an ounce of castor oil, flush the lower bowel by copious hot alkaline enemas, repeated every four to eight hours until the bowel is empty. If it is dilated give some such a combination as I devised for that condition—berberine, physostigmine, juglandin, capsicum and strychnine. By its aid the bowel function may be sustained for a long time yet. But as long as there is tenderness, refrain from intestinal tonics as well as cathartics. Keep the bowel clear by enemas, and combat intestinal spasm by hyoscyamine, hyperemia by veratrine, each in minute doses; gr. 1-250 veratrine and gr. 1-500 hyoscyamine, every two to four hours. Meanwhile—patience, and only liquid food, a tea-cupful every four hours. Hot enemas for paroxysmal or persistent pains in the bowel.

When the attack has subsided it is better to leave the patient upon a combination of cathartics, than upon any single member of the group. I am inclined to believe that no two of these act upon the same part of our mechanism, and that in these cases, incident to the vital and functional decline of advancing age, by a very small dose of each of a number of cathartics we get a smoother and better action, without unduly stimulating any one part or function. Each reinforces the other, and renders its stimulant influence more effective. Make a soft mass of extracts of colocynth, jalap, scammony, aloes, podophyllin, senna, juglans, euonymus leptandra and a few others; add plenty of ginger, and let the patient take a bit three times a day, just enough in the aggregate to insure one satisfactory evacuation. With a correct diet, suit-

able exercise and regularity in going to the toilet, this dose will not need to be increased for a long time.

For an occasional purge, senna is best if the cecum is the seat of the accumulation, cascara for the colon, aloes for the rectum. If intestinal paresis is increasing, the best remedy is a combination such as that devised by me many years ago, of which more than one hundred millions are sold yearly—the Anticonstipation granule. This is one of those well-proportioned combinations that finds a useful place. The formula has been little altered since it was introduced nearly thirty years ago, except in substituting the more uniform principles for the cruder forms then in vogue. While this granule is listed by every pill, tablet and granule maker in the United States, many make alterations in the formula, invariably for the worse. The granules should each contain: Aloin gr. 1-25; atropine, gr. 1-2500; strychnine sulphate gr. 1-500; capsicum oleoresin gr. 1-500; emetine (pure alkaloid) gr. 1-500; bilein gr. 1-250.

I usually direct three granules to be taken each meal, the dose to be increased or diminished until one natural stool is enjoyed each day. After a week this dose may be slowly lessened as the expulsive power of the bowel is increased by this strictly tonic dose. If a stimulant dose is taken no such curative action follows: the irritability of the bowel is exhausted and the condition of the patient becomes more serious. Many elderly men take cathartics in constantly increasing doses until all seem to lose effect, and then go under the knife for "appendicitis," or some other reason. Years ago they died, and the papers said the cause was "inflammation of the bowels," peritonitis, or some other abdominal affection, scarcely comprehended by the attending physician, who most likely looked on the constipation as a not very important incident of the case.

If this stasis becomes too obstinate to be relieved by such means we have still a notable resource in the enema. There is not the same objection to it as in case of the catheter, since

the enema does not carry infection with it. Its regular use is irksome, but not so troublesome, and the relief is direct and decided enough to make it seem worth while to the patient.

SOME POINTS IN THE DIAGNOSIS OF HEPATIC DISEASES.

BY THE EDITOR.

The true aim of all medical science and the object of all theory is to insure wise practice and successful results, and while we may never entirely divest medical practice from empiricism, especially when founded on careful, correct and repeated observation and experience, yet the results of diagnosis and correct treatment dependent thereon, not only justify the adoption of principles on which they are founded, but should imperatively demand thorough investigation along both physiological and chemical lines, aided and assisted by correct biological training. Nor must we lose sight of the fact that what at one time may be regarded as established scientific progress and attainment, in many instances has not proven to be incontrovertible certitude; and the deductions of today in so progressive a science and art, advancing with such rapid and wonderful strides in the last two or three decades may require material alteration, if not a complete re-writing, when viewed in the more effulgent light of the morrow.

The most ardent devotee of medicine cannot now, nor may ever, claim that it merits the name of an exact science, yet this should neither destroy our hopes nor trammel our labors. With the sethoscope beginning with the simple cylinder of Laennec and progressing to the binaural and differential; the microscope and its improvements, including the advances in chromatic knowledge; the test-tube, the thermometer, the Crooke's tube, and the *alpha*, *beta* and *gamma* rays of radium, the sphygmograph, the sphygmanometer, together with other wonderful and remarkable

developments in the field of physics, and in the laboratory, an entirely new era has dawned upon our science and art; and now the advanced school of live, progressive and original thinkers and workers which is rising up and coming so rapidly to the front, carrying both physiological and pathological chemistry into the broad domain of medicine are but the pioneers of the revolution which is to follow. Judging the future from the wonderful progress of the quite recent past, we have no hesitation in claiming that continued work in the chemical, physiological and pathological laboratory, justly applied, will in the years allotted to some of you now on the field of action, reveal many of the deepest secrets pertaining to disease and death; and although scientific medicine will still be, and forever remain, unable to banish the "grim monster riding on the pale horse," yet it will nevertheless enable the truly scientific practitioner to hold him longer at bay. In many instances thus adding to the average span of human life and usefulness; and last but not least, will enable one to follow with unerring certainty the various morbid changes occurring in the animal economy, as well as at the same time permit him to so mould their course to the advantage of suffering humanity.

Declining to claim adherence to that school of pathology "making a goat" of the liver and attributing to its vagaries of structure or function "all the ills that flesh is heir to;" nor yet a therapeutic monist, depending solely on mercury for their relief; however, the importance of this large amount of glandular tissue, its peculiar vascularity, its relation to the circulation and composition of the blood, to the digestive processes, and the normality of other no less essential functional and organic conditions, have always demanded most careful consideration.

First quoting the following from that very excellent work entitled "*Physical Diagnosis*," by Richard C. Cabot, M. D., Instructor in Medicine, Harvard University, third edition,

revised and enlarged, Wm. Wood & Co., New York, publishers, 1905, page 385, it is a great pleasure to place before the readers of this journal another, more lengthy quotation, having a very important bearing on, and relation to hepatic pathology and especially diagnosis of hepatic disease.

Dr. Cabot says: "The evidences of liver disease are two classes, local and general.

"*Local signs* include: (a) Pain and tenderness in the hepatic region. (b) Enlargement of the organ, symmetrical or irregular. (c) Atrophy of the organ.

"The *general signs* which assist in the diagnosis of liver disease are: (a) Portal obstruction. (b) Jaundice, including changes in the color of the skin, mucous membranes, and excretions. (c) Loss of flesh and strength. (d) Evidences of infection (fever, leucocytosis, chills, sweats, anorexia). (e) Cerebral symptoms (headache, vomiting, depression, delirium, convulsions, coma).

"*The various attempts to test the liver functions by chemical examination of the urine and feces have not yet been successful; hence all diagnoses of liver disease must be built up of the above eight groups of data.*"—(Italics mine, D. J. R.)

The second quotation I desire to submit is a most excellent paper read before the Medical Society of the County of Albany, at Albany, N. Y., January 9, 1912, by Jerome Meyers, M. D., of Albany, N. Y., with the title: "*Diagnosis and Symptoms of Diseases of the Liver,*" and is reprinted from the *New York State Journal of Medicine*, Vol. 12, No. 4, April, 1912, pp. 181, *et seq.*

The article entire is as follows:

"Our knowledge of the symptoms of diseases of the liver may be classified under two heads, first, what we do know about the liver, and secondly, what we do not know about the liver. We do know that there are certain well-defined hepatic syndromes,, such as acute yellow atrophy, pernicious vomiting of pregnancy, acute suppurative hepatitis

and abscess; we do know that the liver detoxifies the blood brought to it by the portal system, warehouses sugar from the carbohydrates, the proteins, and the fats in the form of glycogen, acts as a fat depot, breaks down higher fatty acids and forms urea from the ammonium compounds, aids in the final formation of amino-acids from proteins, and manufactures and excretes bile. So much of certain conditions and of the physiology of the liver we know; what we do not know are the early clinical manifestations of disordered hepatic function in the chronic lesions, such as the various cirrheses, carcinoma, or syphilis. These chronic lesions are simple of diagnosis on the autopsy table or under the microscope; it is not so easy to determine unquestionable hepatic disease in the living. Furthermore, the liver is so intimately related, both anatomically and functionally, with other organs both in the abdomen and the thorax, that genuine hepatic disorganization in its early stages may masquerade as gastro-enteric disease, and conversely, gastro-enteric, cardiac, or hematogenic disturbances may make the liver the principal scene of many of their symptoms. There are complex relations between the liver, the thyroid, and the pancreas as regards the glyco-genic function, between the liver and pancreas in diabete bronze, or even in simple cirrhosis; there are connections between the toxic blood conditions, the spleen and the liver in cirrhosis; the pericardium, the pleuræ, the capsule of the spleen, the Glisson's capsule may be similarly affected in the various forms of polyserositis. Necroses of the hepatic parenchyma have been found in eclampsia, and acute yellow atrophy is not seldom associated with pregnancy or the puerperium. The question of typhoid, of the excretion of the Eberth bacillus in the bile, of its prolonged habitat in the gall-bladder, of the formation of gall-stones with their many-faceted symptoms and results, all these problems are contained in the total of our knowledge and ignorance of the symptoms and diagnosis of hepatic lesions.

"Accordingly, it has seemed advisable, instead of detailing individual symptoms or reiterating well-known differential diagnosis, to attempt to place before you some clinical methods for the determination of hepatic impairment or integrity. When hepatic disease is once established, the symptoms are usually sufficiently prominent not to escape ordinary attention. When they are prominent, however, little can be done in the way of restitution or cure, except in purely limited surgical lesions. It is therefore highly important to know what possible means we can employ to estimate the functional power of the liver, and thereby, its anatomic condition. The following brief report of a case will serve to introduce the procedure of hepatic diagnosis:

"Mr. X, 39. Mother has diabetes. Father died of chronic nephritis, sister of pulmonary tuberculosis. A very moderate user of alcohol. Lues denied. For last two years has had feeling of heaviness and malaise after eating, sometimes lasting all day. Some vertigo when lying down after eating. Appetite very poor in morning. No nausea or vomiting or pharyngitis. Does not feel rested at any time. Intestinal movements fairly regular.

"*Physical Examination.* Slight yellow tinge of sclera toward outer canthus. Stomach normal in size, position and form. Test-breakfast of normal composition with free HCL of 50 degrees, total acidity of 68 degrees. The spleen is not palpable or enlarged. The lower border of the liver, in the mammary line, is one-half inch above the free margin of the ribs. Systolic blood tension with Tycos instrument varies between 130 and 140. Feces give nothing abnormal. Urine shows a mild chronic nephritis. The first specimen of urine examined gives a slight reaction for urobilinogen in the cold, the next is negative, then a slight, then three specimens each with a negative reaction.

"Owing to the character of the symptoms, the negative gastric findings, and the presence of urobilinogen, the patient was given on the fasting stomach at breakfast-time

100 gm. of pure levulose, and the urine collected in hourly portions for six hours. Three of these portions, the third, fourth, and fifth passed, showed a positive reaction for levulose with Seliwanoff's solution, one of these portions gave a positive reaction with Fehling's solution, the other two questionable reactions. Based on these findings, a diagnosis of impairment of the hepatic parenchyma was made; in consideration of the diminution in the size of the liver, we may assume a slight cirrhosis. Indicated treatment by proper diet and small continued doses of KI together with the syrup of hypophosphites later have given very satisfactory results, the urobilinogen and casts have disappeared for the last three specimens of urine examined, and the patient has lost his unpleasant subjective sensations.

"There are then in hepatic diagnosis two procedures, first, the determination of the presence or absence of urobilinogen in the urine, involving as we shall see the bile-forming function of the liver; second, the presence in the urine of levulose, involving its glycogenic function.

"First, then, as to urobilinogen. This is demonstrated by the so-called Ehrlich's aldehyde reaction, performed by the addition of a few drops of a 2 per cent sol. of dimethylamidobenzaldehyde in conc. HCL to 2-3 ccm. of fresh unheated urine, a positive reaction consisting of a faint rose-red to a scarlet-red coloration. Marked reactions are of more worth than slight ones, and the contents should be viewed close to the eyes, and not by reflected light as then the reddish color is apt to be falsely accentuated. The specimen should be fresh as the urobilinogen disappears rapidly, due possibly to some enzyme in the urine. While slight reactions are not so important as marked ones, it must still be said that many urines give absolutely no reddish tinge.

"The diagnostic value of urobilinogen in the urine rests upon the following considerations: The liver cells elaborate bile in the form of biliverdin, which as it passes through the alimentary canal is changed to bilirubin, which in turn, in

the large intestines is transformed to hydrobilirubin which is the same substance found in the urine as urobilinogen. Part of the hydrobilirubin found in the large intestines enters the portal system and is carried to the liver cells, which, if they are normal, absorb the hydrobilirubin from the blood and pass it on again into the duodenum. If, however, the liver cells are diseased, or if, for any reason, the hydrobilirubin is not taken out of the portal circulation, but instead passes through the liver into the general circulation, and is excreted by the kidneys, it can be found in the urine as the so-called urobilinogen. Viewing, therefore, these physiological phenomena constituting what we may term the biliary circulation, we can see that, when the liver cells are compromised in cirrhosis, or when the proper physiological conditions are disturbed as in obstruction to the outflow of bile, be it through stone, or neoplasm, or catarrh anywhere in the biliary ducts, we may find this pathological constituent in the urine. In obstruction, or catarrhal conditions, it is very possible that changes in intrahepatic pressure prevents the proper absorption of hydrobilirubin with a consequent urobilinogenuria. With complete obstruction, we find no bilirubin in the intestine, and naturally therefore no urobilinogenuria. In incomplete obstruction and moderate to severe jaundice we may find bile in the intestine with no urobilinogenuria.

“Secondly, then, as to levulosuria, which concerns the glycogenic function of the liver. It is well known that both infants and adults digest and assimilate certain sugars better than others. It has been found that dogs, from whom the liver has been removed, show a lessened tolerance for levulose, but not for dextrose, galactose, or arabinose. Clinically, it has been shown that healthy as well as diabetic subjects have a greater tolerance for levulose than for dextrose, but that subjects with hepatic disease cannot assimilate the same quantity of levulose as a healthy subject can; that is, the unassimilated levulose will appear in the urine. It has

been found that 90 per cent of hepatic patients present levulosuria after the ingestion of 100 gm. of levulose. The levulose is given early in the morning on the fasting stomach in 500 cc. of water, and the patient collects hourly specimens for 4-6 hours. If the liver is seriously involved the levulose will appear in the first portion and may persist for 5-6 portions. If only moderate involvement, the levulose may not appear until after the fourth, and not again.

"We have here then a second valuable means of diagnosis of hepatic sufficiency. It is reliable and more than fairly constant. In conjunction with the test for urobilinogen it gives valuable data. I have followed two cases, both of which showed distinct urobilinogenuria, one markedly so, but in both the levulose test was negative, establishing in both cases a diagnosis of recurrent catarrhal cholangitis, though in one of the cases the liver had been enlarged for some considerable time. Not only are these tests of signal value in diagnosis, but they should be given full trial and consideration in the differential diagnosis of hepatic disease, as it may be a question of cirrhosis, cancer, cholelithiasis or cholangitis. In all these conditions it may be important to establish the presence or absence of bile in the feces. This determination can be made either by the use of Ehrlich's benzaldehyde or of a sat. sol. of HgCl_2 . The former, by adding a few drops of the agent to a few ccm. of a watery solution of feces mixed with 3-4 ccm. of 70 per cent alcohol, the presence of hydrobilirubin quickly gives a beautiful deep rose-red color. The latter, by adding sat. sol. of HgCl_2 to a watery solution of feces, a positive result being a dull brick-red color, occurring soon or after 12-25 hours. A total lack of bile in the second test gives a white coloration; unchanged bile, due to rapid passage through the intestine as in diarrhoea, a green reaction.

"These tests are of importance because the appearance of the stool may be very deceptive, blood, food, or drugs may give a dark color when no bile is present, while we may at

times have a perfectly white stool that contains the normal quantity of bile, but in the form of leucohydrobilirubin, which however, reacts to $HgCl_2$. The stools of infants do not give as marked and definite reactions as those of adults.

"These then are a few diagnostic tests which are of greatest importance in disease of the liver, the gall-bladder system, and also the pancreas, especially carcinoma of the head. The urobilinogen test should be done as a routine part of every urinary examination, and when found in any marked and persistent degree, the levulose test should be employed. In this manner, the diagnosis of hepatic disease can be placed on a more logical basis, earlier diagnosis can be made, and the corollary of early diagnosis, early cure, made at least possible."

Obituary.

DR. JAMES BRICKELL MURFREE.

One of the most prominent physicians of Middle Tennessee, who died at Murfreesboro Wednesday night, April 24th, 1912. Dr. Murfree was born in Murfreesboro Sept. 16, 1835. His father was Mathias B. Murfree, a farmer and a son of Col. Hardy Murfree, for whom Murfreesboro was named. Col. Hardy Murfree was a native of North Carolina and a soldier in the Revolutionary War. Mary Ann (Roberts) Murfree, mother of Dr. Murfree, was a native of North Carolina.

James B. Murfree was educated in Union University, at Murfreesboro, from which institution he received the degree of A. M. He attended one course of lectures in the medical department of the University of Nashville and went to Philadelphia and entered the Jefferson Medical College. There he received his degree as M. D., in March, 1859. He practiced in Murfreesboro until the breaking out of the Civil War, in 1861, when he enlisted in Company

I, First Tennessee regiment, from which company he was detailed as medical officer to care for the sick. He was appointed assistant surgeon by the State of Tennessee. On June 9, 1861, he was commissioned assistant surgeon in the Confederate Army, which position he continued to hold until July 6, 1862, when he was appointed surgeon, and was retained in that position to the close of the war.

After the war he returned to Murfreesboro, where he practiced alone for two years, was in partnership with Dr. L. W. Knight during 1868, then associated with Dr. H. H. Clayton, from 1869 to 1878, and since then had practiced alone. In 1898 he took a post-graduate course in general surgery in the New York Polyclinic Institute. He was a member of the Rutherford County Medical Society, ex-President of the Middle Tennessee Medical Association, ex-President of the Tennessee Medical Society, and ex-President of the Tri-State Medical Society, the last named embracing Georgia, Alabama and Tennessee; was a member of the Southern Surgical Gynecological Association; a member of the American Medical Association, a contributor to the medical journals, was professor of surgery in the medical department of the University of the South, at Seawanee, which position he held from 1895 until shortly before his last illness began.

He was local surgeon for the N. C. & St. L. Railway, medical examiner for the New York, the Aetna, the Washington, the Mutual Life of New York, and several other old line life insurance companies. He was a member of the Democratic party. He was a member of and an elder in the Presbyterian Church; belonged to Mt. Moriah Lodge of Masons, Pythagoras Chapter No. 150, Murfreesboro Commandery No. 10, Knights Templar, thirty-second degree Scottish Rite Consistory at Nashville.

He was married Jan. 14, 1862, to Ada Juliet Talley, of Readyville, Tenn., who survives him with the following children: Hardy, Jane Ready, wife of W. J. Nance; Ada

Morrow, wife of C. B. Huggins; Fannie Hancock, wife of T. V. Ordway; Libbie Morrow and Mary Robert Murfree and Dr. M. B. Murfree.

In honor of his capable and faithful services for over half a century in the town in which he was born, lived and died, all the business houses closed their doors on the day of his burial. Universally loved and esteemed by his family, the community in which he lived, and by the whole medical profession in the State, he justly earned a most enviable reputation by the faithful discharge of every duty.

Editorial.

GRADUATING EXERCISES VANDERBILT UNIVERSITY, MEDICAL DEPARTMENT.

Commencement exercises of the Medical Department of Vanderbilt University were held Tuesday night, May 21st, in the chapel of College Hall, on the west campus, sixty-six graduates receiving their diplomas from the hands of Chancellor J. H. Kirkland. This was the first Medical Department Commencement ever held in College Hall and the class receiving their degrees was the largest in many years.

Dr. Andy Anderson Eggstein of Tennessee was awarded the Founder's Medal by Dr. W. L. Dudley, Dean of the Medical Department. Dr. Eggstein made the highest average grade of his class for the past year, having an average of 98.5. Dr. Dudley, in presenting the medal, said that Dr. Eggstein also had the highest general average of his class for the entire four years' work, and also the highest average ever made in the Medical Department.

The program rendered was as follows: Music by orchestra; prayer; faculty charge, M. C. McGannon, M. D.; music; address, Rev. L. E. McNair; music; conferring of degree, Chancellor J. H. Kirkland, Ph. D., LL. D.; music; awarding of medals, by Dr. W. L. Dudley, Dean; announcements; benediction.

In accordance with the custom of the past, the charge to the outgoing students was delivered by a member of the faculty. Dr. McGannon's address was earnest and his advice to the young men who were entering the profession of medicine was helpful. He charged them to be ever wide awake and progressive, and impressed

the fact that heavy burdens and stern duties are the lot of young physicians, as well as the older ones.

Rev. L. E. McNair brought out a variety of inspiring themes in his address. He placed especial emphasis on the question of benevolent work. This unselfish work, he declared, is necessary if a practitioner wishes for fame of an enduring nature.

The short addresses by Chancellor Kirkland and Dean W. L. Dudley in awarding degrees and honors were well received.

The exercises marked the close of perhaps the most satisfactory year the medical department has yet experienced. After several recent changes in the courses and in the equipment, buildings and campus, the attendance of this department has reached the highest point in the history of the school. The class of 1912 was a large one. The large chapel and balcony was packed with a friendly audience. Parents and friends of many of the graduates came, in some instances, long distances to be present at the Commencement exercises.

After the conferring of degrees by Chancellor Kirkland, Dr. W. L. Dudley announced the following as City Hospital appointees to serve as internes during the coming year: William B. Ward, S. C.; Harlin G. Tucker, Tenn.; Harry F. Friedman, Fla.; Chas. W. Metz, Tenn.; James B. Neil, Tenn.

Three scholarships for the best average grades in the first, second and third year classes were also awarded by Dr. Dudley. William B. Goddard, Ky., was the winner in the first year class, with an average of 97.8. In the third year class, Joe Davis Applewhite, Miss., won, with an average of 97.37, with his brother, C. C. Applewhite, close behind him, with 97.34. Raymond M. Evans, Ky., won the scholarship in the second year class with an average of 96.86, H. C. Long and M. H. Shelby receiving honorable mention.

Besides the internes appointed for the City Hospital, other hospital appointments were announced as follows:

Andrew L. Glaze, Tenn., Vanderbilt Hospital; Herman R. Townsend, Miss., Vanderbilt Hospital; Thomas K. Lewis, Ala., St. Vincent Hospital, Birmingham, Ala.; Charles H. Bryan, Tenn.; Northern Pacific Hospital, Missoula, Mont.; Thomas C. Bell, Ky., Good Samaritan Hospital, Lexington, Ky.; Benjamin V. Howard, Tenn., National Military Home Hospital, Johnson City, Tenn.; Chas. S. Stevenson, Tenn., St. Margaret's Hospital, Kansas City, Mo.; Robert L. Crawford, Fla., St. Luke's Hospital, Jacksonville, Fla.; Lysander Palmer, Tenn., William Parker Hospital, New York City; Isidor D. Haskill, N. Y., Baroness Erlanger Hospital, Chattanooga; James B. Williams, Ky., St. Thomas Hospital, Nashville; Thomas R. Biggs, Tex., St. John's Riverside Hospital, New York City; Moody W. Ar-

nold, Ala., William Parker Hospital, New York City; John W. Stephenson, Ky., St. Thomas Hospital, Nashville; Mason E. Henry, Tenn., Cotton Belt Railway Hospital, Texarkana, Tex.; William J. Hux, Mo., Willard Parker Hospital, New York City; Marion C. Wilson, Tenn., Willard Parker Hospital, New York City; G. P. Gaggioli, Italy, Endowood Sanitarium, Towson, Md.

The members of the Senior Class who received their diplomas in medicine are as follows: Charley C. Adams, Texas; Moody W. Arnold, Ala.; Thomas R. Biggs, Tex.; Thomas C. Bell, Ky.; Charles H. Bryan, Tenn.; James J. Caviness, Okla.; Robert L. Crawford, Fla.; Charles B. Crittenden, Tenn.; Claude W. Cummings, Tenn.; Rollin A. Daniel, Tenn.; Henry A. Daniel, Tenn.; Henry S. Drummond, Ark.; Leonard W. Edwards, Tenn.; Andy A. Eggstein, Tenn.; Harry F. Friedman, Fla.; G. P. Gaggioli, Italy; Robert B. Gaston, Ala.; Andrew L. Glaze, Jr., Tenn.; Roy Goggans, Tex.; Isidor D. Haskell, New York; Elam D. Haysmer, Tenn.; Mason E. Henry, La.; Lysander P. Holmes, Tenn.; Ben V. Howard, Tenn.; Fountain B. Hulme, Tenn.; Williams J. Hux, Mo.; Frank G. Jones, Tenn.; Thomas K. Lewis, Ala.; John L. Maroon, Tenn.; Robert M. Mason, Ky.; Thomas O. Menees, Tenn.; Charles W. Metz, Tenn.; E. B. Middleton, La.; Robert W. Minor, Tenn.; Dudley R. Moore, Miss.; Clifford J. Morris, Ky.; Daniel L. Mumpower, Mo.; Harry H. McClellan, Tex.; Joseph E. McGunagle, Mexico; James B. Neil, Tenn.; Lesley W. Noel, Tenn.; Nash P. Nowman, La.; Adger C. Owings, S. C.; James H. Plunkett, Okla.; Steve E. Potts, La.; Harley W. Qualls, Tenn.; William R. Reeves, Tenn.; Edward B. Ross, Jr., Ky.; Joseph B. Scott, Tenn.; Heddy S. Shoulders, Tenn.; Andrew J. Smith, N. C.; Clyde M. Speck, Miss.; Herman Spitz, Tenn.; Charles S. Stevenson, Tenn.; John W. Stephenson, Ky.; John M. Stewart, Tenn.; Harman R. Townsend, Miss.; Leander E. Trevathan, Ky.; Harlin G. Tucker, Tenn.; William B. Ward, S. C.; John T. Watkins, Jr., S. C.; William R. Wesenberg, Ill.; James B. Williams, Ky.; Robert B. Williams, Ala.; George C. Williamson, Tenn.; Marion C. Wilson, Tenn.; Joe B. Wright, Tenn.

PROPRIETARY PREPARATIONS.

During the past ten or a dozen years we have had occasion from time to time to express our views as to Proprietary Medicines, believing then as now, that many such preparations were a decided advance in therapeutic art and science. The earlier editors of the *Journal of the American Association*, Nathan S. Davis, Culbertson, Hollister and Hamilton, admitted them to its advertising pages, and notwithstanding the unjust attacks made on them by the unworthy

successor of these grand Apostles of Medicine, veritably a "grafting shyster" who obtained admission into the ranks of Regular Medicine by fraud, and holds the position he degrades by the most wily artifices and methods of a political "ward bummer," who, according to Macaulay "being conscious of guilt, employed numerous *artifices* for the purpose of averting inquiry."

Notwithstanding the sadly misguided influences of a periodical published in the interests of Regular Medicine, we do not hesitate to assert that by far the majority of the active, practical, clinical workers to-day in the ranks of Regular Medicine continue to use such preparations. Granting, however, that occasionally some worthless preparations have been placed before the public, yet failing to show satisfactory results, they soon dropped out, fell by the wayside and became obsolete—not an unusual occurrence in medical science and art; while those possessing true merit still retain their hold on that portion of the Medical Profession, who are able to think themselves, their highest aim being the welfare of their clientele, continue to use any and all means that may stay the hand of death or relieve pain and suffering.

We do not at this time propose to resort to further repetition of previous argument or add anything thereto along this line of our own; but take this opportunity of presenting to our readers a few statements from others. Under the title of "*Another Phase of the Proprietary Question*," the very able editor of "*Clinical Medicine*" expresses himself as follows:—

"There is at least one phase of the proprietary question which we believe has not been seriously considered, and that is, that while every effort is being made by some of our earnest and really conscientious, though misguided, workers to destroy the faith of the profession in practically all remedies of this class, and to bring them into ridicule, practically nothing has been done to provide satisfactory substitutes for them, except to make the suggestion—an excellent one, too—that physicians should familiarize themselves with the official and semiofficial preparations contained in the Pharmacopeia and National Formulary.

"In making this suggestion they forget to add that a very large share of these "official" preparations are old proprietaries under other names. In other words, the great "reform" consists in the denunciation of such remedies as antiphlogistine, arsenauro, bromidia, lactopeptine, Fellows' hypophosphites, Antikamnia and Hayden's viburnum compound while the use of practically the same things under other names is suggested or advised. In some instances the very formulas are used that proprietors have published or that analytical chemistry has elucidated.

"There is a reason for the popularity of the proprietaries. Whether many of these were "wonderful discoveries" or not, they have enabled the average physician to secure results more satisfactory to himself and his patients than he was able to secure without them. Very, very few medical men are able to extemporize prescriptions which at the same time are effective, palatable and not uselessly poly-pharmaceutical. All doctors ought to be able to do this, but they are not—and whose fault is it? And even if they were, who but the sheerest crank would claim that he could properly write for, or the average druggist dispense, substitutes as elegant, as cheap and withal so satisfactory as many of the best type of the proprietaries? It is best to look all these facts squarely in the face and be sensible in our conclusions."

The two following paragraphs we quote from *The Medical Standard*, May, 1912, pages 156 and 159:—

"*The Propaganda* for the popularization of U. S. P. and N. F. preparations is an excellent one, well deserving of commendation and support in the main, yet it has its ludicrous features. For instance, one manufacturer has compiled a list of more than 150 drug products manufactured under definite formulae for many years before they were appropriated by the compilers of the National Formulary. This excellent compilation now has official standing with the United States Government and strenuous efforts are being made to prohibit these preparations from being sold in different standards of strength and under other names than provided by the Formulary. The peculiar situation is likely to arise, in which the original preparation, the one which made itself a place in the esteem of physicians, may be absolutely forbidden a right to exist, while the patched-up substitute will be recognized and recommended in the place of the branded 'nostrum.' Certainly this is not likely to encourage initiative; just as certainly it is an official violation of the commandment: 'Thou shalt not steal.'

"*What Do We Think* about proprietary medicines? Do we think them ethical as a class? That depends on the medicine; like men, some are good and some are bad, and it's up to the intelligent physician to use his judgment unbiased by any sort of bureau or other censorship."

From an editorial in the *Va. Medical Semi-Monthly* of May 10th, 1912, we get this:—

"Attacks upon preparations sanctioned by the rank and file of the profession must have as bases fraud and misrepresentation; if their only value is a fantastic name, they will soon be forgotten, since few will take the trouble to remember such names. In any case,

however, before an article is held up to ridicule, the therapeutic value must first be considered, then its chemical features; if the therapeutic value is proven, as shown by the adoption of the article by scores of practicing physicians, the chemical feature will to them become a negligible quantity.

"Therefore, let the medical profession employ such means in treatment as appear best adapted to the case in hand; and such a course will be adopted and followed without regard to the opinions of others."

From the leading editorial in "*The Practical Druggist and Pharmaceutical Review of Reviews*" of March, 1912, regretting that want of space forbids our giving the article on "*The Propaganda*" entire, we make the following quotation:—

"We have before us a little pamphlet issued by the N. A. R. D., entitled 'Some Important U. S. P. and N. F. Preparations.' In it are given the titles and brief descriptions of quite a large number of preparations, and with nearly every one of them appears some such advice as this, 'Should be prescribed in lieu of,' 'Should be given in preference to trade-name articles,' 'We urge the physician to prescribe this in lieu of the proprietary article,' etc., etc., and there are mentioned by name as preparations which should be thus substituted, Pond's Extract, Antiphlogistine, Celerina, Lactopeptine, Gray's Glycerin Tonic, Fairchild's Essence of Pepsine, Urotropin, Listerine, Glycothymoline, Pepto-Mangan, Phillips' Milk of Magnesia, Bromidia, Tyree's Antiseptic Powder, Peacock's Bromides, Fellows' Syrup, Lysol, Resinol, etc. If this is not advocacy of substitution, will some one be kind enough to state what it is? The demand created by Listerine, Lysol, Fairchild's Essence of Pepsine, Pepto-Mangan, is the sole reason that formulas to replace them have been prepared and appear in the official guides.

..... "Manufacturers, for their own preservation, employ the most skilled pharmacists, infinitely better equipped than the ordinary retail druggist, and their products are of such a degree of excellence (in a pharmaceutical sense), that the very best formulas that the N. F. producers have been able to offer fall very far below them in all respects. Let any dozen druggists attempt to make one of the N. F. substitutes for the proprietary and the results will not be uniform, no two will look or act alike in use.

"But what's the use! We hold no brief for the manufacturers. On the contrary, they must expect and do expect, competition, but it should be legitimate competition, not the kind which would urge bastard, illy made substitutes with the claim that they are better than the proved pharmaceutically elegant genuine products."

Finally, we also reproduce two editorials from the May, 1912, issue of "*The Critic and Guide*," both evidently from the trenchant pen of

Dr. Wm. G. Robinson, who never hesitates to call a spade by its proper and common name. The first is entitled "*A Dishonest Editorial and a Nasty State of Affairs*," and is as follows:—

"As I said before, the Journal of the American Medical Association is one of the best medical journals published in the world, and it is painful and disagreeable to have to criticize it; and I would like it much better if it were conducted so that I should have to bestow nothing but praise upon it. But *amicus Plato, magis amica veritas*. Within the last few months it has published a number of editorials which cannot be characterized otherwise than by the word nasty; and nothing will prevent me from criticizing a journal, good as it may be in all other respects, if for some reason or other it begins to prostitute its pages and becomes guilty of irresponsible statements, chicanery, charlatanism and downright dishonesty. There has hardly been an issue of the J. A. M. A. within the last four months which did not contain at least one editorial deserving these epithets.

"As an example I will take this week's issue (April 13). It contains several excellent editorials, but one very nasty one. That one is entitled "Therapeutic Efficiency." The editorial in question very properly says that 'therapeutic efficiency is by no means the only element to be taken into consideration in determining whether a product is or is not a fraud.' With this we fully agree, but here the Journal proceeds to give an example:

"Suppose an unscrupulous individual with no knowledge of medicine or pharmacy, but with an hypertrophied advertising sense conceives the idea of quinin sulphate and starch, has them made into tablets or put up in fancy-colored capsules. He gives the mixture a catchy but meaningless name and obtains a perpetual monopoly of that name under our trade-mark law. He buys advertising space freely in the so-called independent medical press. He tells the physicians of the country that his wonderful preparation is a tertiary diamin of the natural order of *Cinchonaceae* in combination with amylose ($C^6H^{10}O^5$)_n. He recommends it for everything from soft corns to hard chancres. Has the stuff any 'therapeutic efficiency?' Certainly it has. For malaria, it will be just as valuable as one-half the same quantity of quinin. True, quinin sulphate sells for 25 cents an ounce while our advertising friend asks \$5 an ounce for his proprietary preparation. Notwithstanding this, it must still be admitted that it is good—for malaria. It has 'therapeutic efficiency.' Why then should not the Council on Pharmacy and Chemistry approve it? Why should not medical journals aid the swindler in exploiting it by sharing the profits in the fraud? This hypothetical case is no exaggeration of conditions that exist in the pharmaceutic world to-

day. Hundreds of simple mixtures are sold under the most fraudulent claims.'

"All this is stupid, idiotic demagoguism for the purpose of damnable sensationalism. I am never general in my condemnation, but I always make specific charges; and I challenge the gentleman responsible for this editorial to mention *one single product* advertised in the medical journals which is similar to the example given in the editorial. The editorial states distinctly 'this hypothetical case is *no exaggeration* of conditions that exist in the pharmaceutical world today.' If it is no exaggeration then it should not be difficult to mention a dozen preparations which are as common in their composition as a simple mixture of quinine and starch and which are advertised in medical journals as good for everything from soft corns to hard chancres.

"I say that the writer of that editorial is either an ignoramus utterly unfamiliar with pharmaceutical conditions of the present day or he is a deliberate liar. Among the nostrums advertised to the laity, particularly in the low class newspapers intended for farmers, there are such palpable and unequivocal frauds, but *there are no such preparations at the present day advertised in the medical journals for the medical profession*. It is a disgrace for an official journal to make such statements, for they calumniate and wantonly insult: first, pharmaceutical manufacturers whom they thus stamp as common swindlers; second, the medical publishers and editors of the country, whom they thus stamp as sharers in the frauds and swindles; third, the medical profession at large whom they thus stamp as imbeciles and ignoramuses incapable of exercising the slightest discrimination in the selection of their remedies.

"There is also another side to the question. Such editorials have an extremely injurious effect in throwing the entire profession into discredit with the public, for the quacks are quick to pick up all criticism of the medical profession by medical journals—they have special people now devoted to this purpose—and they are not slow to show to the public what the official Journal itself says of the medical profession at large and of its ignorance and lack of discrimination in treating patients. Were this true then I would have no objection to this publicity, because I do not believe in hiding any evils existing in our profession from the public, but to deliberately distort the truth and to make us appear in the eyes of the public a thousand times worse than we are, this is certainly a miserable piece of business for our official Journal to engage in.

"My readers know that I do not hide behind generalities and vague accusations. I have made this editorial as plain and as strong as

I could, and I herewith challenge either the editor of the Journal of the American Medical Association or any Committee of the American Medical Association to discuss this entire question in public and to determine whether the Journal's editorials concerning proprietary preparations and medical advertising represent the full truth or are full of distortions of the truth, malicious innuendoes and unjustifiable accusations, and I shall be willing to abide by the result of such a debate. It is a very, very serious matter for the official Journal of the Association to be guilty of such reckless utterances and misstatements as have characterized some of its editorials of late. No venal commercial journal has ever been guilty of worse perversion of the truth."

And this is followed by one headed "*Sickening Inconsistency*," which reads thusly:—

"And here is something to make the obtusest intellect smile, if an intellect can smile. The J. A. M. A. gives a hypothetical example of a nostrum consisting of quinine and starch which is recommended for all diseases from soft corns to hard chancres. Such a preparation does not exist among ethical proprietaries advertised to the medical profession, and is merely a figment of the editor's overheated brain. But here is something funny. In the same issue of the J. A. M. A., on advertising page 43, there is advertised a preparation under the name of 'Ext. Chinæ Nanning.' It is a preparation of cinchona containing five per cent of alkaloids, but it is advertised as 'a bitter tonic of exceptional utility in *all* functional gastric disorders, *defective metabolism* and diseases of *psycho-neurotic* origin.' Isn't that absurd? Does the editor really believe that the cinchona alkaloids are of exceptional utility in defective metabolism, which may have hundreds of etiologic factors? And since when have the cinchona alkaloids been of 'exceptional utility in diseases of psycho-neurotic origin?' Does the editor really believe that this is true? If this same statement were made about some other proprietary, non-approved by the Council, then the editor of the J. A. M. A. would howl 'fraud and humbug', but because it is advertised in the J. A. M. A. it is all right. Can the king really do no wrong? Gray's Glycerine Tonic is a nostrum, according to the wisecracks of the Council, while Ext. Chinæ Nanning is not. Oh rot! it is becoming sickening."

ARMY MEDICAL CORPS EXAMINATIONS:—The Surgeon General of the Army announces that preliminary examinations for the appointment of first lieutenants in the Army Medical Corps will be held on July 15, 1912, and September 3, 1912, at points to be hereafter

designated. Full information concerning these examinations can be procured upon application to the "Surgeon General U. S. Army, Washington, D. C." The essential requirements to securing an invitation are that the applicant shall be a citizen of the United States, shall be between twenty-two and thirty years of age, a graduate of a medical school legally authorized to confer the degree of doctor of medicine, shall be of good moral character and habits, and shall have had at least one year's hospital training after graduation. The examinations will be held concurrently throughout the country at points where boards can be convened. Due consideration will be given to localities from which applications are received, in order to lessen the traveling expenses of applicants as much as possible. The examination in subjects of general education (mathematics, geography, history, general literature, and Latin) may be omitted in the case of applicants holding diplomas from reputable literary or scientific colleges, normal schools or high schools, or graduates of medical schools which require an entrance examination satisfactory to the faculty of the Army Medical School. In order to perfect all necessary arrangements for the examination, applications must be complete and in possession of the Adjutant General at least three weeks before the date of examination. Early attention is therefore enjoined upon all intending applicants. There are at present sixty-eight vacancies in the Medical Corps of the Army.

PITUITRIN IN DIFFICULT PARTURITION.

Much attention is being given by the medical press of Germany and other European countries to the importance of Pituitrin as an oxytocic. The drug has been somewhat extensively used for the past two or three years, both here and abroad, chiefly, perhaps, as a hemostatic and heart stimulant. Now it is known to be of great value in uterine inertia, obstetricians in many of the German hospitals and elsewhere who have thoroughly tested it clinically, pronouncing it a truly remarkable oxytocic.

For the benefit of practitioners who may not be familiar with its origin and nature, it may be explained that Pituitrin is an extract of the posterior or infundibular portion of the pituitary gland. Although the physiology of this gland is as yet largely speculative, there seems to be no doubt that it contains a substance or substances that exert a considerable influence over the metabolism and on the cardio-vascular system.

As bearing upon the value of Pituitrin in parturition, this expression from Dr. Emil Vogt, of the Royal Gynecological Clinic at Dresden, is significant:

"The oxytocic action of Pituitrin at this clinic was observed in over one hundred cases. After the rupture of the fetal membranes, in the second stage of labor, the physiologic effect of Pituitrin is the most pronounced; the contractions of the uterus follow each other much more rapidly and energetically, and the intervals between pains are decreased. Individually the pains are not more severe, so far as suffering is concerned, even in the case of sensitive women, than they would be in normal delivery. In half of the cases the Pituitrin was administered in the second stage of labor. It failed only once; in all other instances its action was very pronounced. And although we encounter a great many cases of narrow pelvis in Dresden, from 40 to 50 per cent., it was not necessary to have recourse to forceps delivery in a single instance in which Pituitrin was employed . . . According to our experience, Pituitrin is the ideal oxytocic."

Pituitrin is manufactured by Parke, Davis & Co. It is supplied in one-ounce bottles and in glaseptic ampoules (for convenient hypodermic injection), each ampoule containing one cubic centimeter, or 16 minims, the usual dose.

Parke, Davis & Co., have just issued a pamphlet on Pituitrin as an oxytocic, in which is reprinted not only the extract from Dr. Vogt, which appears in this article, but also a number of others from prominent German specialists and practitioners in which Pituitrin is highly extolled as a corrective of uterine inertia. Physicians will do well to write the company, addressing them at the home office in Detroit, for a copy of the pamphlet.

COLORED MEDICAL STUDENTS.

"While the learned professions are assuredly not the place to draw the lines of color or race, our experience compels us to disapprove of mixed classes. The negro, sitting in a white class, imagines he is looked upon askance by his classmate and suspicion is sure to engender this feeling. This detracts from that close attention the study of medicine requires and the man is unable to do himself justice.

"For this reason, and since there are well appointed colleges for colored medical students alone, we advise the latter to resort to their own schools."

This statement will appear in the forthcoming "Announcement" of Bennett Medical College, Loyola University Medical Department, of Chicago, Ill., and which we most heartily endorse and concur in. There is a very good medical school for colored students in Washington City, and Meharry Medical College of this city offers most excellent advantages and has been most favorably mentioned by "The Carnegie Foundation."

A SEASONABLE AND DIVERTING MAGAZINE:—June days bring June diversions, so the June number of *Lippincott's Magazine* has been carefully attuned to the season of roses and recreation. It is planned to amuse, not to instruct, or, if so, only through the channel of enjoyment.

First, we have a long complete novel entitled "Helping Hersy," by the Baroness von Hutten. It is a London story, but some of the people who figure in it are Americans.

John Reed Scott contributes a characteristically good short-story called "The Balance of Power." Other noteworthy ones are "The Apple of Paris," by Annie Steger Winston; "The Wraith and the Statute," by Alfred H. Bill; "The Unsuccessful Alumnus," by Rose Henderson; and "A Night-Letter Serial," by Anna Rozilla Crever. In "Short-Story Masterpieces" this month will be found an able translation of "The Mummy's Foot," by Theophile Gautier. As usual, there is an introduction by the Editor.

There are two important articles. "The Flame-Born Poet," by La Salle Corbell Pickett, is an appreciation of Henry Timrod, one of the most brilliant Southern poets. The second of Hubert Bruce Fuller's papers on "How Congress Squanders Our Money," deals with "The Extravagance of Our Political Appropriation Bills." Katherine Bregy gives some interesting facts about the morality plays "'Everyman' and 'Everywoman.'" Edward Sherwood Meade's financial article tells of the desirability of "Timber Bonds" for investment purposes. The poetry is bright and seasonable.

Churchill Williams's automobile department, "Twentieth Century Travel," is full of valuable suggestions for motorists; while the big humorous department, "Walnuts and Wine," is racy and relishable, as usual.

THE PREVENTION OF DYSMENORRHEA:—How can we prevent dysmenorrhea? It can be done by keeping the patient under morphine, but this is a barbarous solution of an important problem. It in fact does not solve it. Morphine is inadmissible and improper in these cases. It produces derangement of the secretions and tends to establish a drug habit that will make life a burden. I have long employed a remedy that not only relieves the pain, but produces no habit and is not dangerous. I refer to Dioivburnia. It is a most valuable uterine tonic, antispasmodic and anodyne of exceptionall worth. I rely upon this remedy to prevent dysmenorrhea, which as Professor Davenport truly says is seen in almost all, if not in all, women. I have my patients who suffer with dysmenorrhea to take Dioivburnia, beginning two days before menstruation is due and per-

sists in it until the period has passed. I give it in doses of one to two teaspoonfuls every three hours throughout this time. When this direction is followed I have found that my patients go through the period without pain. The adoption of this treatment I may say also, has brought me many grateful compliments.

Where the patient is very nervous having the tendency to hysteria, neuroses or uterine congestion, I administer Neurosine one part, in combination with two parts of Dioviburnia, which always gives relief.

L. G. BOYD, M. D.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

IT IS THE DIFFERENCE IN THE PROTEIDS which constitute the chief difficulty in the substitution of cows' milk for mothers milk. The mere quantitative adjustment of proteids and other constituents does not afford a food which has the physical, chemical and physiological properties of human milk. And it is these *qualitative differences* to which all the methods of infant feeding and all the "foods" have been empirically and scientifically (even instinctively) directed.

One method, the Peptogenic Milk Powder and process, proposes to solve the problem by utilising a physiological principle (the proteolytic enzyme) to convert the proteids to the *definite point* where they correspond with the native proteids of mothers' milk in solubility, minute coagulability and consequent digestibility. At this point the enzyme is destroyed, eliminated, by heating the food to boiling point, or to only 160-165 degrees C.

This physiological conversion of the proteids makes it possible to obtain, in milk prepared with Peptogenic Milk Powder, not only an accurate "percentage" approximation to mothers' milk, but a food peculiarly adapted to the functions of the human infant.

"MALTOSE IN INFANT FEEDING" is the title of a very interesting pamphlet now being put into the hands of the general practitioner by the Mellin's Food Company.

It deals with the question of carbohydrates in the feeding of infants, giving opinions of the comparative value of sugars employed in the modification of milk, and presenting much evidence of a convincing nature as to the superiority of maltose and dextrin for the carbohydrate content of a baby's diet.

Opinions of physicians whose extensive experience entitles them to a respectful hearing seem to show that these combined carbohydrates have a wide range of utility, giving results in intestinal disturbances and in the feeding of well babies that are highly satisfactory.

Requests for copies of "Maltose in Infant Feeding" addressed to the Mellin's Food Company, Boston, will have prompt attention.

CHOREA:—The prompt effect of Gray's Glycerine Tonic Comp. in chorea and kindred nervous affections is attributable to its well known capacity of imparting new tone to weakened and depressed nervous systems. Its use in combination with arsenic in form of Fowler's Solution is attended by such uniformly gratifying results that it cannot fail to appeal to every earnest physician.

The following formula is most effective, employed, of course, in conjunction with as nearly complete rest as possible and careful regulations of the hygiene and diet.

R. Liq. Potass. Arsenitis.....dr. ii
 Glycerine Tonic Comp. (Gray's).....qs. ad oz. viii
 M. et Sig:—One to two teaspoonfuls—according to age of
 child—three times a day.

Under this treatment the nervous symptoms are promptly controlled and a child's condition rapidly restored to the normal.

"BOTH IN MY PRACTICE IN NEW YORK CITY and particularly during the summer when I am located at Richfield Springs, N. Y., a resort where thousands of rheumatic and gouty patients take the Sulphur Baths, I have prescribed Tongaline extensively and it has always proved most satisfactory.

"I would state that owing to the care and skill used in its manufacture, also because it is always uniform and is well borne by the stomach, Tongaline stands foremost among the ready-made prescriptions for rheumatism, neuralgia, grippe, gout, etc. Besides the conscientious practitioner hesitates about having such a complicated prescription as Tongaline prepared by a pharmacist, because even if

the latter had fresh and pure ingredients, he has not the facilities to compound them properly nor could he do so in any reasonable time."

LINK THE PAST WITH THE PRESENT:—J. Marion Sims many years ago said, "For severe Dysmenorrhea I have found Hayden's Viburnum Compound of great service."

What was true as to the therapeutic value of Hayden's Viburnum Compound in the time of Sims is just as much of a fact to-day. As a remedy in the treatment of Dysmenorrhea, Amenorrhea and other functional irregularities of the uterus and its appendages, H.V.C. is dependable in action, and as it is of known composition and contains no narcotics it is safe to prescribe.

As a uterine tonic and antispasmodic it is of particular service, and to any physician who desires to clinically demonstrate its therapeutic action samples and literature will be forwarded upon request to New York Pharmaceutical Co., Bedford Springs, Mass.

THE LOGICAL AID IN NERVOUS BREAKDOWN:—That agent which will tranquilize a highly wrought up nervous system and aid it in regaining its normal functions, is the one whose employment in nervous break-downs is logically indicated. Such a product is PAS-ADYNE (Daniel's Concentrated Tincture of Passiflora Incarnata), and its therapeutic activity in just such conditions as the one being discussed, has earned for it a leading place among the remedial agents used in nervous disorders. It serves the two-fold purpose of reducing nerve strain and restoring the normal tone of the weakened nervous tissues. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

CLEVER WILLIE:—A rough-looking man entered the home of a gentleman in a Western city, and, seeing no one around but a small boy named Willie, said to him, "If you don't tell me where your father keeps his money, I'll knock your top-knot off an' afterwards eat yer."

"Please don't," said Willie. "You'll find all the money we've got in an old coat in the kitchen."

Two minutes later a bruised and battered wreck was pitched through the front door of Willie's home, and sat in the gutter and blinked.

"That kid's too smart," said the man. "Never said a word about the ol' man bein' inside the coat."—*June Lippincott's*.

SYPHILITIC CACHEXIA:—In the cachexia of syphilis, particularly during the late months of the disease, Cord. Ext. Ol. Morrhuæ Comp. (Hagee) has proven of much value, and is employed for this purpose in a routine manner by many physicians. Its therapeutic power as a reconstructive in syphilitic cachexia rests upon its well known property of improving bodily nutrition. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is a blood-maker of high order, a feature that makes it of particular value in syphilitic debility. Its employment will be of much aid to the usually resorted to therapy of syphilis and gratifying results will be noted from its administration.

SARAH'S SQUANDERINGS:—In Concord, New Hampshire, they tell of an old chap who made his wife keep a cash account. Each week he would go over it, growling and grumbling. On one such occasion he delivered himself of the following:

"Look here, Sarah, mustard-plasters, fifty cents; three teeth extracted, two dollars! There's two dollars and a half in one week spent for your own private pleasure. Do you think I am made of money?"—*June Lippincott's*.

RENAL HYPEREMIA AND NEPHRITIS:—A very neat and instructive little illustrated pamphlet containing some valuable data on the above subjects is being sent out to the profession by Messrs. Reed & Carnrick, 42-46 Germania Ave., Jersey City, N. J. If you have not received a copy, a postal card or other request will bring you one.

IODINIZED EMULSION (*Scott*) is growing in favor with the physicians who have used it in Typhoid Fever, Stomach and Bowel Troubles as an Intestinal Antiseptic and Disinfectant. Strictly ethical. Advertised only to the physicians. Prepared by The Dawson Pharmacal Company, (Incorporated), Dawson Springs, Ky.

IN THE TREATMENT OF MALARIA a new candidate for professional favor will be found in *Pam-Ala*. A sufficient quantity for thorough trial will be sent you free of charge by The Pam-Ala Co., 10 and 12 Christopher St., New York City. You will also receive extended reports of its use in Italy and elsewhere if desired.

TO BUILD UP; TO BRACE UP; TO TONE UP:—In any form of de-vitalization prescribe *Pepto-Mangan* ("*Gude*"). Especially useful in anemia of all varieties, chlorosis, amenorrhea, Bright's disease, chorea, tuberculosis, rickets, rheumatism, malaria, convalescence and as a general tonic.

FEBRITONE deserves a thorough trial in all cases whenever quinine is indicated, as it will be found quite satisfactory in its results. Its action is prompt and effective in Malaria, Malarial Cachexy, the Anemias, etc. It is a happy combination and an excellent ethical preparation.

Selections

THERAPEUTIC ANTIQUATION:—The past twenty-five years have, without doubt, in this country at least, been characterized by the reign of the knife. They have been pre-eminently the realm of surgery. There is, in fact, scarcely an ailment in which the surgeon has not taken a hand and, it must be admitted, usually an effective hand. Even in those diseases which seem most peculiarly to belong to the internist surgery has interposed and lowered the mortality percentage; while in its own domain the wonderful story of modern surgery reads almost like a romance, or, let us rather say, like an extravaganza.

Yet, in spite of this, the individual, personal dread of the knife remains today just as keen as it ever was. Nobody deliberately seeks the aid of surgery. Talk knife to the patient and he or she still shrinks and winces, and usually goes the long round in a desperate attempt to evade it. And it speaks volumes for the achievements of surgery that, in the face of this personal horror of the knife, and without modifying it to any appreciable extent, it has forced the public to accept its heroic measures as current medical coin.

It is not difficult to find the reason of this supremacy of surgery over therapeutics in the period referred to. Surgery is abreast of the times. Essentially a mechanical science, it is wide awake to all the current advances in every collateral science and industry that may in the remotest way be likely to contribute to its own progress, and impresses them daily, hourly, into its service. It is "up to

the minute." When we turn to therapeutics, what a different situation meets us! And with how little excuse. For the wealth of collateral data in the past quarter century has been just as great for internal medicine as for surgery—perhaps greater. The march of the procession has been just as swift and sustained—but alas, therapeutics has not kept step.

Just one instance will sufficiently illustrate the apathy and inadequacy of this branch of medical science. Consider the radical and revolutionary changes that have taken place within the past twenty years in our conceptions of physical and chemical processes—of which the work of van t'Hoff and his confreres in surface tensions, and of J. J. Thompson, Lenard, and the rest in the electron doctrine of the elements may be regarded as representative—which should profoundly influence our study of drugs and their action; and then compare the text-books of therapeutics and materia medica of the present day with those of twenty years ago. We do not say that there is absolutely no difference between them; that the modern text-book shows no improvement or advance. But we do assert that, so far as the essential principles of physical chemistry upon which the modern text-book is based are concerned, all the important work of the intervening period might just as well have been left undone.

The trouble just now is, that everybody has gone serum-mad. Not that we are belittling the serum idea. But sera do not constitute all there is to therapeutic medicine by any means; and it is a thousand pities that the entire therapeutic field of research should be given up to one restricted branch of the subject, to the utter neglect of all the splendid work that the physicist and the chemist have done and which ought if adequately utilized to be revolutionizing the entire realm of drug therapy.—*Medical Standard*.

HEART COUGH:—One of the early lessons in diagnosis which the writer received from his preceptor made an in-

delible impression. The patient had suffered for several years, intermittently, from a chronic cough, unattended with expectoration, but associated with considerable discomfort in the throat. She had been under the care of general physicians and throat specialists, so called, and had been treated with sedative medicaments of various kinds, inhalations, gargles, and even galvanocaustic applications—all without avail. Inspection of the pharynx showed a general, diffuse, dusky redness, with prominent follicles of deeper hue, sufficient to make a first year student, when asked for his opinion of the case, confident that in calling it chronic pharyngitis, which showed the same dull, diffuse redness, and modified his diagnosis accordingly to one of the laryngopharyngitis. He was then told to examine the pulse and heart. The pulse was somewhat rapid and feeble. No murmur was detected on cardiac auscultation, but the sounds were weak, and it was demonstrated to him by percussion that the area of dullness was enlarged. The throat symptoms, he was then told, were secondary and would disappear without any local treatment when the weak and dilated heart was restored to proper function by rest, regulation of diet, and the use, if necessary, for a short time, of a few drops of tincture of digitalis daily.

Since then, an experience of thirty years has brought other such cases under observation. Sometimes there is only muscular weakness, sometimes dilatation, sometimes valvular lesion, sometimes muscular degeneration. In some cases there are congestions in other regions—in the stomach, for example, giving rise to symptoms termed “indigestion” and liable to be mistaken for chronic gastritis; sometimes affecting the liver; sometimes affecting the kidneys. In not a few cases, however, the only congestion evidenced by symptoms or found upon examination is that of the air passages; thus there may be engorgement, not only of the throat, but also of the turbinate bodies, which last might likewise be falsely interpreted as a local affection.

To return to the case which furnishes the text for this brief sermon, the words in which the distinguished physician emphasized for his pupil on that occasion, the broad general lesson to be drawn—beyond the mere diagnosis of laryngo-pharyngeal congestion secondary to cardiac enfeeblement as a cause of cough and simliar symptoms—may be repeated as a lesson to other young men beginning the study or the practice of medicine: “Be a general physician or a specialist, as you may prefer, but whatever work you choose, do not be a one eyed man.”—*Solomon Solis-Cohen in N. Y. Medical Jour.*

THE GENERAL PRACTITIONER:—The grand old man of the profession, Abraham Jacobi, eighty-two years of age this month, yet young enough to take an active interest in the affairs of the American Medical Association, of which he is the President, in February, delivered, at the opening of the Boston Dispensary Hospital for Children, an address upon “The Significance of the General Practitioner,” which is characterized by all the fire and optimism of virile manhood.

This address is filled with inspiration for the general practitioner. As Dr. Jacobi puts it: “Nor can I even speak of my profession and its contribution to the delivery of the people with anything but religious fervor and warm thankfulness.” He does not believe that specialism is destined to swallow up the family physician. Quite the contrary. He beautifully expresses his feelings in the following words:

“What I want you to continue is to admire the specialist, by all means; what I want you to learn is to revere and adore the general practitioner. There are a few left of the species called famliiy physician. Mind what I say: In twenty-five years he will recover the place of honor which was his fifty years ago. It will be he who alongside and on account of his other work will again build characters

and souls, which some of you have said is the only office left for the physician. But I say to you that that theory and that demand are realized only by preparing characters and souls on the foundation of healthy bodies and sound limbs. He will then be a doctor that will not mount on a bank, as was customary for mountebanks in dark centuries; but he will again be the general adviser, having learned from the laboratory men and the specialists who are the modern handmaids of practical medicine; knowing the history of his trusting friends and taking an interest in their wholeness and wholesomeness,—the chum of the old people, the intimate of confiding girlhood, and the uncle and oracle of the kids."

Dr. Jacobi teaches an idealism which is in keeping with the spirit of the age. There is and ever will be plenty of work for the general practitioner, but his career should be built upon the broad foundation of character coupled with scientific knowledge and professional skill. Service—to the individual and to the community—is the keynote to success, since the physician, and particularly the general practitioner, stands in a most intimate relationship to the problems of society, and can, if he will, help more in their solution than any other man.—*Med. Standard.*

GALLSTONES AND THEIR SIGNIFICANCE:—An excellent resume of the problem of gallstones is given by Dr. Arthur E. Benjamin in the Boston Medical and Surgical Journal, as follows:

1. Gallstones are not normal residents of the gall bladder.
2. They are the products of infection from the alimentary canal and a late complication of the microbic invasion of the gall bladder.
3. Many of the severe gastro-intestinal symptoms are due to the presence of gallstones lodged in the biliary tract.
4. Cholecystitis resulting in the production of gallstones will recover less rapidly when stones are present.

5. Whenever stones can be diagnosed, an operation should be advised.

6. Gallstones often migrate from the gall bladder to the cystic or common duct and later lodge there, causing destruction of tissue and obstruction of the ducts. The operative morality is 3 percent when in the gall bladder, and 11 percent when in the common duct.

7. Inasmuch as an operation for gallstones is usually one of "terminal events," an operation should be performed if possible before they are found, namely, in the cholecystitis period.

8. The interdependence of the gall bladder, stomach, liver and pancreas is such that the gall bladder should be preserved in all cases where it is not hopelessly diseased and unable to regain its function.

9. The frequency with which pancreatitis is associated with gallstones in the common duct makes the gall bladder an essential organ to assist in the drainage of the biliary passages in pancreatitis, and should be saved.

10. The percentage of cancer associated and following the irritation of gallstones in the biliary tract should urge all practitioners to recognize their responsibility in a case of postponed operation for gallstones.

In this connection it should be remarked that the experience seems to show that there are many cases of gallstone-disease where operation is neither desirable nor necessary. The testimony to the efficiency of sodium succinate in some of these cases is certainly large enough to encourage a trial of this remedy in the mild cases, as well as in those where operation for any reason seems inadvisable.—*Med. Standard.*

FOR PROFUSE SWEATING OF THE HANDS OR FEET:—Meachen, in the October number of the *Practitioner*, suggests the following formulæ as having proven of value:

For Sweating Feet.—The feet should be bathed every

night in a warm one per cent solution of potassium permanganate; then thoroughly dried. The following morning dust with this powder:

R Potassium permanganate	3ij
Powered alum	3xx
Powdered alum	grs. xx
Powdered talcum	3i
Zinc oxide	
Precipitated zinc carbonate aa.....	3ss
M. ft. pulv.	

If the powder is objectionable, white socks soaked in a saturated solution of boric acid may be worn. Gradually increase the strength of the potassium permanganate baths, and in mild cases will soon result in a cure.

When there is a severe bromidrosis, solutions of formaldehyde are of great value, but they should be below ten per cent strength, especially if fissures exist.

For Sweating Hands.—Bathe them two or three times daily in one of the following lotions:

I.

R Tannic acid	3i
Eau de cologne	3ii
Alcohol	3vi
Water	q. s. ad 3viii
M. ft. lotio.	

II.

R Quinine sulphate	3i
Alcohol	3vi
Rose water	q. s. ad 3x
M. ft. lotio.	

THE. NUMBER OF INSANE:—We now have the grand total of 187,454 insane institutions in the continental United States, or 203.8 per 100,000 inhabitants (census of January 1, 1910). The highest proportion is found in New York, 343, and Massachusetts, 344; and the lowest in Arkansas, 69, and Oklahoma, 67. While the population has

increased about 11 per cent since the last special census for the insane in 1904, the number of insane in institutions has increased about 25 per cent. This, of course, means that a larger portion of the insane are cared for in institutions and that the number of insane are increasing faster than the population. The death rate among the committed insane is remarkably high. This is due to the diseases which are fundamental to the insanities. In the next census bulletin the rate of mortality may be discovered.—*Lancet-Clinic*.

TYPHOID FEVER, RUSSO'S TEST IN.—For a year the authors have been applying this test, originally described in 105 typhoid cases. As a result they are prepared to vouch for its efficacy as a diagnostic aid, if used early enough in the disease. They tabulate a series of fifteen cases in which the results of the test, as compared with those of the diazo and Widal reactions, seem superior to the latter in uniformity. Positive tests were noted also in many other cases of typhoid in which the ordinary laboratory examinations were not made. In non-typhoid patients the results were invariably negative, except in a few cases of tuberculosis. The earlier in the disease, the more likely and the more typical the reaction—an important point of difference from the other laboratory tests, except the blood culture.

The test is performed by adding to 4 or 5 c.c. of the patient's urine 4 drops of a 0.1 per cent aqueous solution of methylene blue. After thorough admixture the urine is examined against the light; a mint or emerald-green coloration is positive, whereas any bluish tinge renders the test negative. One should have seen the typical color once or twice to be sure of the results. As the disease advances, there is a gradual resumption of the bluish tinge; though experience will often enable one to distinguish the returning blue tint of a convalescent typhoid patient from that of a normal or non-typhoid urine.

The reason of the mint or emerald-green color is doubtful, but it is probably a reduction test, depending upon the presence of unknown bodies in the urine.

Urine containing bilirubin give a reaction differing so slightly from the typical green that they cannot be used for the test. A preliminary test for bile must, therefore, be made to determine the availability of the Russo test in the given case.—*F. W. Rolph and W. H. Nelson (Medical Record, August 19, 1911).*

CLINICAL THERAPEUTICS:—The student who has a smattering of pharmacology, such as he can get in the laboratory, is nothing more than a poor mechanician, who soon finds that the knowledge of the effects of a poisonous drug on a frog is of no service when it comes to the effects of a therapeutic dose upon a man. Experience shows that the laboratory pharmacologist, when he is taken ill, turns his back upon his theories, and incontinently and voraciously swallows such expectorants or purgatives, or other medicines, as the lowly general practitioner may see fit to prescribe, because illness convinces him of the value of bedside experience, and his confidence is well placed, for *he gets well*.

“It were better if some of the pharmacologists of the day would strive to be upbuilders rather than iconoclasts, since by this means they would more successfully advance scientific medicine, and what they had to say would be listened to with greater respect. The average man wants to be shown how he can improve, not how mistaken he is.

“Even if the time should arrive when all our therapeutic measures have a pharmacological foundation, and every student has a clear conception of the scientific status of drugs, the man of bedside experience will still possess a priceless advantage which will make him of infinite value to all his clients, because he will have come to recognize that disease does not follow hard and fast lines of science,

but varies in its manifestations as to the effect of drugs, according to the systemic peculiarities of the individual who may be ill."—*Cushny*.

THE DIAGNOSIS OF TUBERCULOSIS.—J. Jefimow (Deutsch-Americkanische Apotheker-Veitung) proposes the following chemical diagnostic measure for tuberculosis: A portion of freshly voided urine is heated to boiling in a test-tube and is then tested with litmus paper. In active tuberculosis the reaction will be found amphoteric. Only in the last, prognostically unfavorable stage it is markedly acid.

Another test is the following: To a portion of freshly voided urine a small amount of a 20 per cent solution of lead acetate is added. The mixture is passed through a double filter, a small portion of the filtrate is heated to boiling, and to the hot urine a 10 to 20 per cent alcoholic solution of silver nitrate is added, drop by drop. After five, ten, twelve or more drops of silver nitrate the urine of patients in the first latent and in the second active stages of tuberculosis assumes a brick-red color, sometimes with a violet tint, while the urine of tuberculous patients in the third stages becomes dark red, perhaps cherry colored.

In healthy persons, as well as in patients with other bacterial and non-bacterial diseases, the reactions here described are not observed.—*Medical Standard*.

THE RESUSCITATION OF STILL-BORN INFANTS:—The Journal of Therapeutics and Dietetics for December last contains among its editorials a graphic account of how the physician succeeded in resuscitating a child that had been still-born after an exceedingly strenuous labor in which first forceps had been applied and which then had been terminated by version. The cord was parted in the fray and free hemorrhage had taken place in the parturient canal, the little inanimate object being as white as a piece of marble.

After all known methods for starting life in a fetus had been employed without results, the doctor wrapped the body in a warm wet cloth and then in a warm dry blanket. He then applied a small hemostat-forceps to the end of the tongue and made rhythmic tractions sixteen times to the minute, timed exactly by the watch. After keeping this up for nearly twenty minutes, a faint gasp from the little body gave evidence that some reflex impulse was traveling down that branch of the pneumogastric nerve and was waking up the slumbering heart. In five more minutes the heart was beating under its own steam, and life had started.

We congratulate the doctor on the pluck and persistence with which he defied death, and can understand the satisfaction he must have felt when he laid the little newcomer into his mother's arms. We mention the case because all too often the attempts to resuscitate still-born babies are given up early. After persistent and prolonged effort will be successful against apparently overpowering odds.—*Medical Standard*.

THE AUDITORY CANAL IN MASTOIDITIS:—During the last four or five years a large number of cases of atypical mastoiditis have come under my observation. In most of these the condition characteristic of the process was the appearance of the fundus of the canal. A pronounced sinking of the upper and posterior wall of the external auditory canal, or sometimes an elvation of the floor of the canal, in cases of considerable duration, has been the most constant symptom of a mastoiditis. We are warranted in assuming that the conformation of the external auditory meatus, upon the two sides, will be similar, unless some pathological condition exists. If, then, we can exclude bony growths, or an inflammation of the outer portion of the external auditory canal; that is, a furuncle, any narrowing of the meatus upon one side is strongly suggestive of involvement of the mastoid cells.—*E. B. Deuch, in the Interstate Medical Journal*.

A LIVELY CORPSE:—A country doctor, returning from a visit in the small hours of the morning, in the time of the "body snatchers," had to pass a secluded burial ground, in which a deceased patient had been interred the day before. When he reached the wall he saw a horse and trap standing unattended on the road outside. Looking cautiously over the wall, he saw that two men had just disinterred the corpse. Standing in the shadow of the wall, he saw them bring out the body and place it in a sitting position on the seat of the trap, so that, when they drove away, the body, which they had wrapped in a dark cloak, would in the dim light look like a third man, sitting between the other two. They then got over the wall again to fill in the grave. The doctor lifted the body down from the trap, laid it under the wall and seated himself in its place. After a short time the two men got over the wall again, threw their spades into the back of the trap, seated themselves one on each side of him, and drove off. Presently one of the men said to the other: "The body seems to be warm still." The other replied: "So it is." Then the corps said, "Warm! and if you had been where I have been for the past twenty-four hours you would be warm too!" The two men leapt with a yell out of the trap at opposite sides and ran for their lives.—*British Medical Journal*.

CARCINOMA OF CERVIX:—If the surgeon desires to discover carcinoma of the cervix in a curable stage women past middle life must be examined periodically, for to wait until symptoms appear is often to discover the disease too late.—*American Journal of Surgery*.

HEMORRHAGE from an old, indurated gastric ulcer is a much more serious matter than bleeding from a more recent ulcer, since in the former the vessel may be unable to collapse and allow clotting.—*American Jour. of Surgery*.

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THE EARLY DIAGNOSIS AND TREATMENT OF TUBERCULAR JOINTS.*

BY PAUL F. EVE, M. D., OF NASHVILLE, TENN.

In the limited time allotted for this paper, it will be necessary that the scope be as brief as possible; consequently I will be as concise as the subject will admit. I shall, therefore, only call attention to the Joints of the Extremities, exclusive of those of the hands and the feet.

THE SHOULDER JOINT.

Tubercular disease of this joint most often occurs between the fourteenth and thirtieth years of life and is not

*Read at regular meeting of The Nashville Academy of Medicine, Tuesday, June 11th, 1912.

so frequent as that of the other joints. It has its starting point either in the synovial membrane or the bone, and when in the latter it usually occurs in the cartilage of the head or in the growing line of the Epiphysis of the greater tuberosity, while occasionally it may appear in the glenoid cavity. The diagnosis between these two varieties should be readily made, as in the synovial variety there occurs early effusion and limitation of movements, while in the bone we have swelling of the soft parts and thickening of the bone without effusion, accompanied with greater or less pain at night. A typical tubercular hydrops with the formation of a large fluid exudate in the joint is uncommon, but there is a marked tendency in tuberculosis of the shoulder joint, whether in the bone or membrane, to destruction and disappearance of the head of the humerus. The early symptoms are those of weakness in the joint with slight stiffness and pain. As the disease progresses, the pain becomes of a neuralgic character, with localized tenderness upon palpation which, if in the head of the bone, can be felt in the axilla. There occurs also some atrophy of the muscles of the upper arm and shoulder and even those muscles attached to the scapula. Upon palpation an apparent thickening of the upper end of the bone can be discerned, due to swelling and infiltration of the capsule and ligamentous structures. The diagnosis of tubercular affection of this joint should not be difficult of diagnosis from other affections, if we take into consideration the history of the patient and the gradual development of the disease.

The general treatment consists of the same line as indicated in other joints or tuberculosis elsewhere. The local treatment, however, presents a much better chance for recovery than in any other joint, being due to the fact that immobilization can be carried out in the shoulder joint without interfering with out-door exercise. The arm should be suspended in a sling secured to the side, and unlike the other joints has nothing but its own weight to con-

tend against and hangs in the natural position of ease. In this position it is quite easy to make any applications, such as blisters, counter-irritants, etc., for the reduction of hyperæmia, or of friction or passive movement. Should the disease progress to such an extent as to destroy tissues a free incision should be made, and the diseased structures thoroughly removed. The best incision for this purpose is one extending over the bicipital groove, when the tendon being reached should be lifted from its groove to the outside. If the disease, however, commences in the head of the bone an incision should be made over the softened structure.

THE ELBOW JOINT.

There may be a moderate amount of pain and tenderness over either of the condyles of the humerus, or over the olecranon process for many months before there occurs any limitation of motion in the joint. The early symptoms consist of some stiffness, limitation of motion and pain especially when the arm is extended, followed by a pulpy swelling on either side of the olecranon behind the joint, or the whole joint may be swollen. The joint presents a peculiar spindle-shape enlargement and nowhere in the body is this typical result more apparent. In certain cases the X-Ray picture shows the loss of substance on the front of the humerus just above the elbow. In these cases there is often but slight pain in ordinary movements, but there is stiffness from the beginning and the limb is kept in a semi-flexed and semi-pronated condition. These with the family and personal history of the patient, the chronicity of the affection and the appearance of abscesses without any known cause, are the chief guides in our diagnosis. The treatment consists in immobilization of the joint by proper apparatus—tonic preparations together with preparations of iodine, applications of the actual cautery, mercurial inunction, combining with strapping, etc. In a few cases passive motion is very beneficial, but this must be used with

greatest caution. A method as suggested by Dr. Bier of Keil is highly recommended by those who have used it. It is known as the method of hyperæmic engorgement and consists in applying an elastic bandage over the extremity as far as the affected joint, in such a way as to produce an engorgement of all the vessels in and around the joint for some hours daily. This as stated is followed by the arrest of the tubercular process and death of any tubercular foci already present in the part. The treatment which I, however, rely upon in the early stages of the disease, is the injection of a ten per cent solution of iodoform in glycerine. While the iodoform does not kill the bacilli, it does, however, inhibit its propagation and allows nature to remove the diseased products. If there exists a sinus and we have mixed infection this treatment accomplishing but little or no good. The joint is placed in the position of greater ease. Where the disease advances and sinuses presents themselves they should be dealt with by the open method, and all the diseased structures thoroughly removed. Should the disease advance to the stage of destruction of the joint there remains no other means than that of amputation. The constitutional treatment consists of abundance of digestible food, fresh dry air, good clothing, moderate open-air exercise, cod liver oil, etc. In childhood our common experience leads us to the fact that the disease may be very severe attended by extensive abscesses and sinuses and in the end quiet down, leaving the joint to all intents and purposes as good as before. On the other hand, however, in adults and half grown patients this result is not to be anticipated.

THE WRIST JOINT.

In this joint the tubercular disease begins principally either in the synovial membrane or the bones. The early symptoms are stiffness followed by a little uneasiness or pain, and the tendons move freely over the joint with but little suffering or limitation. Later there is atrophy of the

muscles, swelling, and the joint presents the characteristic swollen, doughy wrist. Softening is soon detected at either side of the extensor tendons, the bones become enlarged, and severe and continuous pain is felt on the slightest movement. The pain at this time is so severe as to prevent the patient from sleeping, and his general health becomes impaired with emaciation and weakness. The general treatment is the same as in other joint afflictions. The local treatment consists in absolute rest of the joint by the fitting of a well-adjusted splint, the application of blisters, iodine and other counter-irritants. The injection of iodoform in glycerine, ten per cent. solution, in the early symptoms of this disease has proved of great value in my hands, has limited the disease and given excellent results. Should the disease advance an incision should be made and every vestige of the disease removed. When greater destruction has taken place, resection of the lower ends of the radius and ulna and removal of some of the carpal bones will be necessary, and occasionally when complete destruction has taken place amputation of the forearm will be required.

THE HIP JOINT.

Tubercular disease of this joint is possibly one of the most common affections met with in surgery, and is generally seen in the two extremes of life, in the very young and the very aged. The greatest number of cases, however, occur between the fifth and tenth years. The disease commences either in the head of the bone, the synovial membrane or the acetabulum. From these points the whole joint may become infected, the disease spreading outward without invading the surface, forming abscesses outside of the capsule. The latter fact should be borne in mind as an early diagnosis, and proper treatment will prevent any further infection and not allow the disease to reach the capsule. The early symptoms are those first of a slight limp in the affected limb accompanied in the morning with some

stiffness and pain. This pain is not usually located in the hip, but on the inner side of the knee in the direction of the obturator nerve. At this early stage the hip can be moved in all directions without pain, but by a mechanical shock, such as a blow upward upon the heel pain is elicited. When the disease begins in the head there is sometimes discovered an inflammatory deposit, the focus of the disease. This focus may be at the periphery of the plane, but more often in the center. Owing to muscular spasm, children awake frequently at night and cry out loudly with pain. The so-called "night-cry" of some authors. Quite early in the disease the entire extremity, including the muscles and the bone undergo partial atrophy. In examining these children they should be placed upon a smooth hard table. The cardinal signs being muscular spasm, atrophy, swelling and shortening, with obliteration of the gluteal furrow on the affected side. When the disease advances we have abscesses, sinuses and destructive changes of the bone and synovial membrane. Should the synovial variety occur, the joint would be fixed so as to prevent friction of the inflamed surfaces, assuming the characteristic position of acute synovitis, and any movement would be accompanied with much suffering. As the disease advances, besides the swelling, tenderness, heat and redness there will be increased flexion to relax the tender capsule, and as the latter becomes softened, abduction will be converted into adduction and the eversion into inversion. Further destructive changes may now occur, there is actual loss of substance in the bone, producing two flattened surfaces which slide upon each other and where the head of the bone may slip on the dorsum ilii, and additional destructive changes in the tissues forming the joint take place. Hip joint disease is commonly divided into three stages. First, the stage of inflammation with softening, and known by some authors as the stage of irritation. Second, the stage of inflammation with softening and partial destruction, and as there is an ap-

parent lengthening of the limb in this condition, it is spoken of as the stage of lengthening. Third, the stage of destructive changes not only to the ligaments, but also to bone, with or without dislocation, and where flexion, adduction and reversion occurs—known as the stage of shortening. In the early stage of this disease we find the patient's health comparatively good, and by proper treatment, we are almost certain to make a complete restitution of the joint. This is accomplished by keeping the joint in absolute rest, together with fresh air, sunshine, a generous diet and the administration of tonics. There are so many devices in the shape of splints and hip joint apparatus that it would be tedious and altogether unnecessary for me to mention them. Suffice it to say we should get a well adjusted apparatus, comfortable to the patient, and one that carries out all the condition necessary for complete rest. Should abscesses and sinus develop they are to be treated in the same way as indicated in other joints. All diseased structures should be removed, and it may be necessary in some cases to resect the head of the femur.

KNEE JOINT.

Tuberculosis of this joint occurs most often in young and old patients, but middle life is not exempt from it. In the younger patient it generally begins in the lower part of the femur or the head of the tibia, occasionally it may have its commencement in the patella. In the older patients we usually have the synovial membrane affected, as the growth of the bones is less active at that time of life. When this membrane becomes affected the tubercle appears in the sub-endothelial structures, and spreads either towards the surface of the joint or the external parts. In the bone it is usually found under the cartilage or at the junction of the epiphysis and diaphysis, where growth is more active. It would be a great advantage if we could always discover at what point the disease begins and in what direction it

is extending, but I am sorry to say we cannot always determine this fact. We, however, know that disease begins in the growing part of bones and consequently the older the patient the less likely are we to find the disease having its starting point in the bones. Early in the disease the joint is impaired, the patient avoiding the rubbing of the affected surface. The joint will, therefore, become fixed, although the patient may be able to bear the weight of the body upon it without pain. The limb is placed in the position of greatest ease, that of slight flexion. Tender spots may be discerned over the condyles of the femur or tibia. Pain is experienced upon movement. The skin over the joint is normal in color, but when felt is slightly warmer than its fellow. There now occurs a certain amount of effusion in the joint and the condition known as floating of the patella may be seen. The limb is placed in the extended position with the heel supported. If the knee joint is flexed no amount of fluid in the joint is sufficient to raise the patella away from the condyles of the femur. The surgeon places the thumbs and middle fingers of each hand upon either side of the ligamentum patella and the quadriceps tendon, one hand above the other below the patella, and makes firm steady pressure over these places in order to force the fluid in the joint beneath the patella and cause it to lift this bone away from the condyles of the femur. The fore-fingers of either hand are then placed upon the patella and used to push the patella backward against the condyles. If any considerable quantity of fluid exists in the joint a feeling of elastic resistance is imported to the fingers. If the pressure by the fore-fingers is suddenly increased the resistance is overcome and the patella is felt to strike the condyles of the femur a sharp tap. As the pressure of the fingers is relaxed the patella is felt to rise again from the condyles. When the epiphysis of the femur or tibia is alone affected there is no appreciable alteration in the joint, the movements are comparatively easy, but there

will be felt some thickening and tenderness, and when the weight of the body is thrown upon the limb, pain will be present. Pain is also felt when a jar is given in the long axis of the limb, or when hyper-extension is resorted to; the patient also complains of a sense of heat and throbbing in the end of the bone, especially at night and in some cases tender spots are felt over the epiphyseal line. The joint now becomes more swollen and presents a bulbous character. The muscles of the thigh and leg undergo partial atrophy. The pain becomes more acute, the swelling increases and moderate fever is noticed. The pain is not entirely referred to the affected joint, but is often in part a referred pain. The skin over the knee now assumes a dead white color, (tumor albus or white swelling). As the disease progresses abscess and sinus appear with destruction of bone and soft tissues. In the treatment of the earlier stages absolute rest is enjoined, counter-irritants, tonics, fresh air and sunshine, and a liberal diet. Many forms of apparatus have been devised for enjoying rest, but perhaps the best device is Taylor's splint or a Plaster of Paris encasement. It has been my privilege to have treated many cases of tuberculosis of this joint, and even when abscesses had formed, but where no sinus existed, and hence where I did not have mixed infection, by the use of the iodoform solution in glycerine injected into the joint with most excellent results. Bier's method is recommended very highly in the treatment of this joint. When sinus exists, or abscesses and diseased bone, they are to be treated in the usual manner as indicated in the other joints. The disease may advance to such an extent as to require resection of the bones or an amputation.

ANKLE JOINT.

Tubercular disease of this joint presents as its earliest symptoms, pain on motion, with limitations of active and passive movements; the production of a limp and a gradual swelling of the ankle and the upper part of the foot.

When examined the joint is more or less symmetrically enlarged, although the most prominent part of the swelling is usually in front of the joint. When the disease has further advanced it presents a swelling on the posterior aspect of the joint which produces a considerable broadening of the heel. Finally, the swelling is of such a nature as to obliterate the malleoli and assumes a spindle shaped or ovoid enlargement. Upon palpation a more or less characteristic doughy infiltration is detected. This together with family and personal history form about the only lines of diagnosis. As the disease advances abscesses and sinuses will appear, with destructive changes of the bones and soft parts. The treatment consists in absolute rest by the application of a properly applied splint or Plaster of Paris dressing, and placing of the patient upon crutches, so as to obtain fresh air and sunshine. In some cases the early use of iodoform in glycerine is quite beneficial, or the application of counter-irritants. When abscesses and sinuses occur they should be treated upon the same plan as suggested in the other joints; the disease advancing, resection or removal of some of the tarsal bones may be resorted to; or as a last resort, amputation.

ANTI-TYPHOID INOCULATION.

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The figures of McLaughlin of the Marine Hospital Service cited in a recent* editorial of the J. A. M. A. reveal rather startling information concerning the prevalence of typhoid fever in our country. He makes the assertion that in 1909 there were more cases of typhoid fever in the United States, with a population not half so large as that of

*J. A. M. A., April 6, 1912.

India, than there were cases of plague in India; and that there were four times as many cases of typhoid in the United States as cases of cholera in Russia during a period including the epidemic of 1910. The editorial further quotes McLaughlin,* who says that "we consider with apprehension the countries in which cholera and plague occur frequently and call them pest-ridden countries, but do not consider the problem of typhoid fever in our own country with sufficient seriousness." He gives tables to show that within the registration area in the United States, in fifty cities having an aggregate population of over 20,000,000, the average typhoid death-rate for 1910 was 25 per hundred thousand inhabitants. In one city in that year it amounted to 86.7 per hundred thousand, and in several cities it amounted to 45 or more. In ten of the largest cities of northern Europe, comprising a population of 15,000,000, the average typhoid death-rate per hundred thousand of population during a period of ten years, from 1901 to 1910, was only 3.4, and in 1910 the rate had gone down to 2.5. It is considered in Europe that a death-rate of 13 to 15 per hundred thousand constitutes a rather serious reflection on the sanitary management or the water-supplies of such cities. And yet the figures are far below the average of the fifty cities in the United States above referred to, in which the death rate was 25 per hundred thousand of population. Leaving out of account such causes, of typhoid as infected food and milk, contact, carriers, etc., McLaughlin believes that this death-rate can be very materially reduced by filtering the water-supplies of our cities which are too largely contaminated by sewage. Sanitary measures have done wonders towards the eradication of this dread disease but it matters not how vigorous sanitary campaigns may be waged against typhoid they can never stamp the disease entirely out. The presence of the chronic typhoid carrier which has been shown to exist in about

*McLaughlin Public Health Reports, March 22, 1911.

2% to 3% of all recovered cases is a factor of supreme importance to the dissemination of the disease, and which is exceedingly difficult to control by sanitary measures. Another point is that the modes by which the infection is spread are so numerous that we cannot control all of them perfectly.

Vaccination against typhoid fever is undoubtedly a most valuable aid towards diminishing this disease and sanitarians have heralded it as indispensable in aiding in combating certain outbreaks. The disease has been the specter that haunted every camp where soldiers were herded, and no amount of sanitation has been able to eradicate it entirely. But typhoid vaccination has worked the seeming miracle, and to-day the martial cohorts of the world are practically immune.

HISTORY OF ANTI-TYPHOID INOCULATION.

The history of anti-typhoid inoculation dates back among the earliest of the immunizing experiments, and, following Pasteur's work on immunity in anthrax, several investigations were undertaken on laboratory animals.

In 1886, Fraenkel* and Simonds found that rabbits could be protected by small doses of typhoid bacilli, and in the same year Beumer and Pfeiffer succeeded in producing immunity in mice. Similar experiments were made by Chantemesse, Widal, and Sanarelli. In 1892 it was shown by Brieger, Kitasato, and Wasserman, that killed cultures were as effective in producing immunity as were live ones. In 1893 and 1894, Pfeiffer,** together with Wasserman, Kolle, and Isaëff, made other studies on immunity in cholera and typhoid, and formulated the classic Pfeiffer phenomenon. Pfeiffer and Kolle, in 1896, made the first experiments, in the same year. In 1898 Wright introduced the method into the British Army, to whom belongs the credit for starting it in human beings.

*Progressive Medicine, March 1, 1912.

**Progressive Medicine, March 3, 1912.

In 1898, through the efforts of Wright, it was used in the British Army in India with most encouraging results. During the Boer War Wright furnished 400,000 doses to the British Army. Statistics were poorly kept. There was wide divergence of opinion as to its value and much adverse criticism. Wright collected statistics of 19,000 cases which showed favorably. In 1902 the difference of opinion in various quarters caused discontinuation of its use in the English Army.

Investigation decided that statistics may have been at fault. Leischman showed that typhoid vaccine may be greatly weakened by over-heating, and this is thought to have been one of the reasons that results were not more satisfactory at that time. The earlier vaccines used by both the English and German troops may have been over-heated in preparation.

KUHNS' STATISTICS.

The German troops sent to South Africa from 1904 to 1907 numbered 16,496 men, and of this number 7,287 men volunteered for vaccination. The following are the results:

Among the 16,496 men there occurred 1,277 cases of typhoid. Among the uninoculated the percentage of cases was 9.48 per cent. Among the inoculated 5.09 per cent.

TOTAL CASES.

	UNINOCULATED		INOCULATED	
	CASES	PER CENT.	CASES	PER CENT.
Light Cases -----	331	36.55	186	50.13
Moderate -----	225	24.85	96	25.88
Severe -----	234	25.80	65	17.52
Fatal -----	116	12.80	24	6.47

These statistics were accurately kept. It shows a lower percentage of cases. A large number of light cases and death rate of one-half.

In 1904 typhoid vaccination was re-adopted in the British Army.

The following is the latest reports from English troops in India by Sir W. E. Leischman:

Inoculated -----	10,378	Noninoculated-----	8,936
Cases of Typhoid---	56	-----	272
Deaths -----	5	-----	46
Cases per 1,000-----	5.39	-----	30.4
Mortality -----	8.9	-----	16.9

The most striking example of the efficacy of typhoid vaccination is afforded by the comparison given by Col. J. R. Kean, of our Army Medical Corp in Journal American Medical Association, August 26, 1911.

In 1898 there were mobilized at Jacksonville, Fla., 10,759 men. There occurred 2,963 probable and certain cases of typhoid fever, with a total of 248 deaths.

In 1911 there were mobilized near San Antonio, Texas, 12,801 men. Vaccination was compulsory. All the men who had not been previously vaccinated were immunized with typhoid bacterin. The time that bodies of troops were encamped was about the same. The latitude was practically the same. Both had good camp sites with a water supply of unquestioned purity.

	JACKSONVILLE	SAN ANTONIO
Number of men-----	10,759	12,801
Cases of typhoid-----	2,963	1
Deaths -----	248	0

Major Russell, in commenting upon the phenomenal results at San Antonio as obtained from typhoid vaccination, has the following to say:

"There is no doubt but that the hygiene and health of the men received almost ideal care; the difficulty was, however, that the men were not confined to camp, but had liberty and opportunity to visit the neighboring cities of San Antonio and Galveston. Thousands spent more or less time

in these cities, where they dined and wined and lunched and drank and slept—in fact, became for the time being, a part of the community. In Galveston, especially where a ten minutes' ride carried one from the camp to the heart of the city, the number of men visiting town was larger. The soldier always has a good appetite and he drank and ate everywhere, in good restaurants and bad, in the numerous lunch wagons and at street corners and stands. Fruits and pies and sweets in enormous quantities were purchased of hucksters lined up along the camp boundaries; they even invaded the Companies' streets carrying their various sorts of indigestibles and infectious products from tent to tent. The best kind of camp sanitation could not keep down typhoid in the presence of all these possible chances of infection, if typhoid existed to any extent among the local population.

During the period of four months there were reported to the Health Officer 49 cases of typhoid with 19 deaths among the civil population of the city of San Antonio; and in Galveston 192 cases. These cases can therefore serve as controls and indicate what might have happened to our troops in the absence of vaccination.

Aside from the sources of infection in the adjoining cities, we must believe that the men were also exposed to the influence of an unknown number of chronic bacillus-carriers among our own men. There is every reason to believe that among 18,000 men there were one or more carrier in each Regiment, yet they spread no disease, and one of the most important conclusions to be drawn from the recent experience is that in vaccination we have the only effective protection against the elusive carrier.

METHODS OF ADMINISTRATION—"THE THREE DOSE METHOD."

The usual method of administering the vaccine is in three doses. This "three dose method" has its drawbacks which will be discussed later. The first dose is 500 million; the second dose one billion, given ten days after; and the

third dose another billion administered ten days after the second injection. The injection is given under the skin in a similar manner to one administering a hypo. of morphine. An ordinary hypodermic is used and the left arm is selected if the patient is right handed. Usually from six to eight hours after the injection, (sometimes sooner), there is a redness at the point of injection varying from the size of a dime to twice the size of a dollar. It will be tender to the touch and painful upon pressure. The next day the redness will be more intense, larger and slightly edematous. If the reaction be severe it will extend over the entire biceps region, and even as low down as midway between the forearm and hand. In from two to three days all redness and soreness disappears except for very severe reactions, which may last for four or five days longer. Abscesses or infections have never been recorded by anyone. This is in all probability due to the antiseptic that is used in preserving the vaccine. The constitutional reaction varies greatly. With some no discomfort is experienced, while in others the reaction is quite severe, producing very high fever (103 degrees F. to 106 degrees F.) for several days, attended with severe aching in the joints and muscles simulating lagrippe. Nausea, vomiting, albuminuria, and casts sometimes occur in these severe cases. The great majority of cases, however, have only a slight rise of temperature the day following the injection, with slight aching and malaise lasting from twelve to twenty-four hours.

OBJECTIONS TO THE THREE DOSE METHOD.

- (1) Occasional severe local and constitutional reactions are encountered which are sometimes quite distressing.
- (2) An initial dose of 500 millions to some individuals will cause a distinct lowering of resistance and therefore a consequent susceptibility to typhoid fever during several days after its administration.

(3) The machinery of immunization will sometimes fail to respond in a proper manner should too much of the vaccine in the initial dose (500 millions) be given.

(4) Should a person be in the incubative stage of typhoid fever and 500 millions be administered, the result would probably be exceedingly dangerous.

THE TEST DOSE, OR THE FOUR DOSE METHOD.

In order to avoid these extremely severe reactions, a test dose should always be administered. This test dose contains 100 million dead typhoid bacilli which will never under any circumstances, produce untoward results. The severest reaction resulting therefrom is only a slight malaise lasting a day with a degree or two of fever. The site of the injection is scarcely noticeable to the touch. A red area twice the size of a dollar is sometimes induced in the severest reactions. The persons, even in these marked reactions, never take to the bed, but on the other hand continues his or her daily duties as if nothing had happened. In the vast majorities of instances the injection only produces a slight redness ranging from the size of a dime to that of a dollar, with no rise of temperature, nor any constitutional manifestations.

The second dose does not consist of a definite number of bacilli as in the three injection method. It is administered according to the mildness or severity of the first injection. For example should the first injection prove severe with a 100 million bacilli, then it would not be wise to give over 500 million at the second injection. Suppose the initial injection of a 100 million produces little or no symptoms, then it is reasonable to suppose that that individual can stand a much larger dose than the one showing a severe reaction. Consequently an injection of 700 million is given at the third dose, without producing the slightest discomfort. If no reaction with the initial dose is experienced then the interval between the first and second dose is cut

down to five or six days instead of ten days, which is the usual time to wait. The third injection consisting of a billion to a billion and a half, is administered ten days after the third dose.

ADVANTAGES OF THE FOUR DOSE METHOD.

In following out this scheme there is absolutely no untoward reactions or discomfort to the individuals undergoing typhoid immunization. The highest and most lasting immunity can be accomplished by this method. There is manifestly no danger in being vaccinated during an epidemic or even while the patient is in the incubative stage of the disease. This latter condition is distinctly dangerous and has proved fatal more than once by the administration according to the "Three Dose Method," (viz: By using 500 million as the first dose it simply overwhelms the patient and so renders him more susceptible). A striking example *apropos* to this was cited by Freeman: In a recent issue of the Naval Medical Bulletin there is a report of the case of a young marine in vigorous health, who, while in camp in Cuba, was inoculated with the same vaccine that was used in the routine inoculations of the Marines of that corps, and who within two or three days thereafter developed a most virulent case of true typhoid fever and promptly died of it. At autopsy living typhoid bacilli were found in the heart, blood and various tissues. The man who studied the case and did the bacteriological work, as well as the clinicians, agreed that this young man was most probably in the incubative stage of typhoid fever, and that the dose of typhoid vaccine was sufficient to overwhelm him and bring on a fatal issue. This would have been impossible had a test dose of 100 million been given him. No lowering of his resistance could have been possible with said dose, but it is highly probable that with an initial dose of 500 million, (just five times stronger than the test dose), that a distinct reduction in resistance and diminished op-

sonic power of the blood known as the negative phase was produced which caused the typhoid bacilli to grow more rapidly in the blood.

It is logical to assume that a test dose of 100 million if given to a person that should happen to be in the incubative stage of typhoid that such a dose would be beneficial, in that the various antibodies, agglutinins, opsonins, etc., are speedily formed which might have a tendency to abort or more likely to lessen the duration and severity of the disease. I confidently predict that sometime in the near future that all early typhoids will be given small doses of the vaccine at repeated intervals. Sufficient reports by quite a number of clinicians are already at hand to warrant its further trial.

The weight of testimony now is that the vaccine administered during the course of typhoid fever will cut short the course of the disease, prevent relapses, and the carrier state be eliminated.

PREPARATION OF THE VACCINE.

Cultures of typhoid bacilli are grown for 24 hours on agar, washed off in normal salt solution and standardized so that 1 c. c. of emulsion contains one billion bacilli. They are killed by heating from 53 to 56 C. for one hour, (the difference in killing temperature depending upon the strain of typhoid bacillus used). They are tested aerobically and anaerobically, and finally guinea pigs are inoculated to see if they are innocuous. As a matter of additional safety and also as a preservative 0.25 per cent of tricresol is added. Many vaccines are made with only one strain of the bacillus typhosus. This is certainly not the ideal vaccine since it does not protect from the other strains, particularly the para-typhoid class which is becoming quite frequent. Realizing this fact, I am now making all of my vaccine to contain from five to seven different strains of typhoid, in-

cluding the Para "A" and "B" types. By such a vaccine one is more sure of an immunity of a wider scope than if a single strain were used.

THE BLOOD IN TYPHOID.

The various antibacterial substances elaborated in the blood and the tissue fluids of an infected individual serve, however, in a large percentage of cases to protect against subsequent attack. These antitropic substances, the agglutinins, lysins, bactericidins and latterly the bodies concerned with phagocytosis (the opsonins and stimulins), are distinctly anti-bacterial rather than antitoxic in their function. The process of immunization in typhoid is, according to present knowledge, a matter of specific reaction on the part of the body cells to the protein molecule making up the cell structure of the bacterium. This reaction is specific for the protein molecule exciting the reaction on the part of the body cells, and takes place, according to Vaughan and Wheeler* through the liberation of a specific ferment which is activated or liberated through excitation by the proteid in question, whether bacterial, animal or vegetable. Such specific reaction in the process of immunity protects only against the specific proteid derivative which calls it forth; that is to say, the proteid derivatives obtained from colon bacilli. The reaction is specific in the sense that the antibacterial substances elaborated under the influences of an infection are protective only against that infection. So far as is known at present we have then the same antibodies, agglutinins and bacteriolytic power produced during typhoid inoculation as in clinical typhoid. The quantity of all these protective elements seems to be even greater after vaccination than after clinical typhoid.

CONCLUSIONS.

(1) Statistics based on a large number of cases show conclusively that antityphoid vaccination confers a marked degree of protection against typhoid fever.

*Vaughan & Wheeler, in N. Y. Med. Jour., June 27, 1907.

(2) The method of antityphoid vaccination involves no risk and is especially applicable for those constantly exposed to the infection, such as nurses, hospital attendants, physicians, travelers, campers, etc.

(3) Individuals should be immunized if living in a district where the typhoid-rate is high or before leaving a healthy city for a summer vacation.

(4) The administration of the vaccine in four doses has many advantages over the three dose method.

Records, Recollections and Reminiscences

FIFTEENTH ANNUAL MEETING OF "THE ASSOCIATION OF MEDICAL OFFICERS OF THE ARMY AND NAVY OF THE CONFEDERACY,"

AT MACON, GEORGIA, (REUNION U. C. V.), MAY 8, 1912.

Our meeting was advertised in "The Daily Telegraph" and "The Daily News" of Macon, and two places kindly tendered for meeting of Confederate surgeons, the Prayer Room of Christ Church (Episcopal), and the Council Chamber of the City Hall. The latter was used, as the position was in the center of the city. A preliminary meeting was held May 7th, and the regular session the following day, May 8th. Those present were: Drs. W. F. Beard, of Shelbyville, Ky., President; S. H. Ragan, Kansas City; C. Kendrick and wife, Kendrick, Miss.; F. W. Flambo, Canton, Ga.; W. C. Kendrick, Dawson, Ga.; W. P. Alexander, Maysville, Ga.; E. D. Newton, Atlanta, Ga., Acting Secretary.

Dr. W. F. Beard, President, owing to the absence of our able Secretary. Dr. A. A. Lyon, of Nashville, Tenn., appointed Dr. E. D. Newton, of Atlanta, Secretary Pro Tem.

In response to our invitation, through the Macon daily papers, the Daughters of the Confederacy were represented at the meeting by Miss Mildred Rutherford, the Historian General of said organization, who gave an outline of the efforts of the Daughters at their recent meeting at Richmond, Va., to assist our Association in raising funds for a monument to our late Surgeon General, Samuel Preston Moore; the same to be placed in the midst of our illustrious soldiers of the Confederate Army now resting in the cemetery at Richmond, Va. Miss Rutherford promised the support of the patriotic women of the South, giving praise to all of the surgeons of the Confederate Army. She was tendered the unanimous thanks of all present and all of the surviving Confederate surgeons.

At the conclusion of her address, Mrs. A. S. Erwin, a daughter of General Howell Cobb and the widow of a distinguished Confederate officer of Lee's Army, the originator of the Confederate Cross of Honor; and Miss Patterson, a daughter of a prominent Confederate surgeon, were introduced to each one of the Confederate surgeons present. The absence of Dr. Lewis, of Washington, D. C., the Chairman of the Monument Committee and the originator of the design for the monument to Surgeon General Moore, was very greatly regretted. His feeble health alone prevented his attendance.

Dr. Newton tendered a kindly message from Mrs. T. R. R. Cobb, of Atlanta, Georgia State Librarian, offering to bind in book form all of the proceedings of our Association from date of organization of the Association free of charge. (Proceedings already published in the "Southern Practitioner," our official organ, Dr. Deering J. Roberts, of Nashville, Editor). The unanimous thanks of the Association given Mrs. Cobb.

As suffering humanity throughout the world, in the home, the hospital and on the battlefield have realized and enjoyed the great discovery of Surgical Anesthesia by Dr.

Crawford W. Long, of Georgia; and as our Association of Medical Officers of the Army and Navy originated in Georgia, (Atlanta); and the present meeting was within the great State of Georgia, Dr. Newton presented a synopsis of the life and services of Dr. Long and his discovery of Surgical Anesthesia, written by Dr. Long's daughter, Mrs. Frances Long Taylor, of Athens, Ga. This sketch of Dr. Long was written at the request of Dr. Newton, in 1858 a pupil in Medicine and Surgery of Dr. Long, to be presented at this meeting and to be placed in the archives of our Association of Confederate Surgeons. The sketch was most gladly accepted with the most profound thanks by the Association.

Year by year the membership of our organization is decreased, yet our meetings are deeply interesting to the survivors. Our Macon meeting was truly enjoyable. Our thanks are due to the press and the city of Macon and the same are most cheerfully tendered.

With a hand to hand and heart to heart good-bye, the Association, after the re-election of all officers for the Sixteenth Annual Meeting, embracing Dr. Beard, President; Dr. A. A. Lyon, Secretary and Treasurer; and the Vice-Presidents, adjourned to meet in Chattanooga, Tenn., in 1913.

EDWIN D. NEWTON, *Secretary Pro Tem.*
DR. W. F. BEARD, *President.*

MEETING OF THE ASSOCIATION OF MEDICAL OFFICERS OF THE ARMY AND NAVY OF THE CONFEDERACY, HELD AT MACON, GA., MAY 8, 1912.

On account of some misunderstanding or neglect, provisions were not made for place of meetings, etc., of the Association of Medical Officers of the Army and Navy of the Confederacy until it was too late to publish it in time

for the meeting. As soon as I reached Macon, the first day of the reunion, I began to look for some one who could tell me where the meeting would be held, but I found no one. On the second day I read in the papers that there would be a meeting at the Chamber of Commerce at 9 o'clock the next day. Of course I was there on time. Very few responded to the call, very few having read the notice. There was no program prepared, but President Beard took the chair, and Dr. Newton acted as Secretary pro tem. Some were in favor of adjourning to meet in "the sweet bye and bye"; it was, however, decided to make one more effort.

Dr. Reagan, a junior member, made a very strong speech in favor of continuing the Association. A short but enthusiastic session was held and some important business transacted.

Dr. Newton induced Miss Mildred Rutherford, of Athens, Ga., to appear before the Association and make a short talk. She is Historian of the Daughters of the Confederacy. She tendered her services and those of the organization she represents to raise money sufficient to erect a monument to Surgeon General Moore, C. S. A., and his assistants. She was very enthusiastic on the subject, and I feel sure that her enthusiasm will be of much benefit to the Association. Several papers were read by title and referred to the Committee on Publication.

Dr. Newton read a short paper prepared by Mrs. Florence Long Taylor, daughter of Dr. Crawford W. Long, on the subject of the discovery of Surgical Anaesthesia by her father. The Association ordered this paper delivered to the public press, it being one of great historical interest in which every Southerner should be interested.

Mrs. Alexander Erwin, daughter of Hon. Howell Cobb, was presented to the Association. She designed the bronze cross of honor. In my opinion no man can wear a badge of honor more to be prized than the one designed by Mrs. Erwin.

There were two old men present over eighty years of age. It is not likely they will attend another meeting in this world. Dr. J. A. Viser, Whitewright, Texas, was admitted to membership as an associate member. There were no other applications for membership. All the old officers were re-elected and the Association adjourned to meet at Chattanooga at the General Reunion next year.

Fellow-members of the Association, it is up to us now whether the Association shall live or die. If through the efforts of Miss Rutherford we succeed in getting money sufficient to erect a monument to Dr. Moore and his associates, the meeting in Macon, although but few were present, may prove to be one of the best ever had. If you have the interest of the Association at heart send your dues to Dr. A. A. Lyon, Nashville, Tenn., and resolve now to attend at Chattanooga next year. Dr. Lyon cannot act as Secretary and spend his own money for stamps, stationery and printing. The Association should at least pay his expenses for printing, stamps and going to and from reunions. Let us all try to get one new member next year.

Kendrick, Miss.

C. KENDRICK, M. D.

DR. CRAWFORD W. LONG.

(An essay written by his daughter, Mrs. Florence Long Taylor, and read at the Fifteenth Annual Meeting of the Association of Medical Officers of the Army and Navy of the Confederacy, by Edwin D. Newton, M. D., of Atlanta, Ga.)

Crawford W. Long was born in Danielsville, Ga., on the 1st of November, 1815. As a boy he was studious and mature beyond his years and entered Franklin College at so young an age he was called "baby." Notwithstanding this fact, he graduated as Master of Arts and with the second honor at the age of nineteen, in 1835. In 1839 he graduated from the Medical School of the University of Pennsylvania.

After graduation he spent one year in a New York hospital, where he made such a reputation for himself as a

surgeon that he was urged to apply for a position as surgeon in the U. S. Navy. Obedient to his father's wishes, however, he returned to practice in his native State and located in Jefferson in 1841, at that time a small country town far removed from any railroad at least one hundred and forty miles.

In the month of December, 1841, the subject of inhalation of nitrous oxide gas was discussed by a party of young men in Dr. Long's office and he was requested to prepare some for them, but not having the requisite apparatus for preparing or preserving the gas, he replied that sulphuric ether would produce equally as exhilarating effects and was as safe. In a paper read before the Georgia Medical Society he says: "On numerous occasions I inhaled ether for its exhilarating properties, and would frequently, at some short time subsequent to its inhalation, discover bruised or painful spots on my person which I had no recollection of causing and which I felt satisfied were received while under the influence of ether. I noticed my friends while etherized received falls and blows which I believed were sufficient to produce pain on a person not in a state of anaesthesia, and on questioning them they uniformly assured me that they did not feel the least pain from these accidents. Observing these facts, I was led to believe that anaesthesia was produced by the inhalation of ether and that it would be applicable in surgical operations."

Dr. Long at once determined to prove his discovery on the first surgical case he should have. That opportunity came on March 30, 1842, when Dr. Long administered ether to James Venable until completely anaesthetized, and then excised a small cystic tumor from the back of the neck. June 6, 1842, he removed a second tumor from the same patient.

In August, 1842, Dr. Long married Caroline Swain, an attractive, intellectual woman, who proved an inspiration and help meet.

In November, 1844, Dr. Joseph B. Carlton, a young physician of Athens, when visiting Jefferson, was persuaded by Dr. Long to administer ether to a negro boy in his office who was suffering with an aching tooth. The operation was successful.

Dr. Long exhibited to medical men and the community in 1842 his use of sulphuric ether as an anaesthetic.

Wells performed his operations with nitrous oxide gas in December, 1844.

Morton exhibited to medical men and the community the use of his secret remedy "Letheon" September 30, 1846. As an anaesthetic, Morton was fortunate in showing his patent remedy to the great surgeons of Boston—Warren, Haywood and Bigelow, who performed the operations and published the real greatness of the discovery.

Dr. Long was thoroughly convinced of the anaesthetic power of ether, but was anxious to put it to a severe test in capital surgery. His operations prior to the one by the Boston surgeons were confined to removing tumors and amputating fingers and toes. Wishing a broader field for his work, Dr. Long moved to Athens in 1850, where he soon acquired a lucrative practice; here he remained until his death.

Early in the Civil War Dr. Long was appointed by the Governor of Georgia to be one of the three physicians to remain at home to attend the sick. Later when the University buildings were used as a hospital and many sick and wounded were sent there for treatment, he was one of the surgeons who attended them. At the close of the war when Athens was made a U. S. garrison, as there was no surgeon, the position of contract surgeon was offered him. His reply was, "I cannot accept. I cannot take the oath. I have done everything in my power for the South." Said Colonel Blucher: "Your reputation for honor and integrity is such that no oath will be required." Probably the only instance in the South where a man a short while

before surgeon in a Confederate hospital filled a similar position for a United States garrison, and without any sacrifice of honor.

In 1877, Dr. Marion Sims, upon hearing of Dr. Long's first operations on an anaesthetized patient, communicated with Dr. Long and soon convinced himself of his claim and published a pamphlet entitled "The Discovery of Anaesthesia," advocating Dr. Long's claims as to priority of use of sulphuric ether to produce anaesthesia in surgical operations.

He had but a glimpse of what the future would bring to him, but he began to feel that he would be recognized as one of the world's benefactors. His oft repeated wish to die in harness was granted him, as broken down by work while laboring at the bedside of a patient, Mrs. Helen Newton Carlton, he was stricken with apoplexy at the residence of Dr. H. H. Carlton, lived about thirty-six hours and died June 16, 1878, at the age of sixty-two. One of the physicians ministering to him was his old student, Dr. Edwin D. Newton, Surgeon C. S. A., and the only surviving member of the staff of Dr. La Fayette Guild, Chief Surgeon and Medical Director Lee's Army.

Henri L. Stuart, one of the founders of the Woman's Hospital of New York, became interested through Dr. Sims in Long's claims and presented a portrait of him to the University of Georgia. After seeing it unveiled with great ceremony in the capitol in Atlanta, one year after Long's death, he went to Athens as a guest of Dr. Long's family, to visit the grave of the discoverer of anaesthesia. The night of his arrival he had a paralytic stroke and died at the home of the Longs. At his own request, his remains were interred near those of Crawford Long.

The National Eclectic Medical Association, June 18, 1879, unanimously passed a resolution recognizing Dr. Long as the discoverer of anaesthesia.

April, 1910, a very imposing monument, presented by Dr. L. G. Hardman to the Jackson County Medical Society at Jefferson, in memory of Dr. Long, and overlooking the spot where the first operation was performed for painless surgery, was unveiled before the Georgia Medical Society and an immense concourse of citizens, by Dr. Long's daughter, Miss Emma Long.

Of American surgeons, the late Dr. Grandy, Surgeon U. S. A., and Dr. Hugh H. Young, of Johns Hopkins, Baltimore, have by their writings done much to advance the claims of Dr. Long. Dr. George Foy of Dublin, Ireland, has been for years a most enthusiastic supporter. Through his influence, Long is recognized in Great Britain and Europe as the discoverer of anaesthesia.

In 1910, Dr. Foy requested that Dr. Long's proofs of his first use of sulphuric ether in painless dentistry should be exhibited at the meeting of the Medical Congress of Great Britain, to be held in London. His daughters took them over and placed them in the hands of the President of the anaesthetist section, Sir Frederick Hewett, the King's anaesthetist. They were exhibited in the Medical Museum and attracted much attention. Dr. Dudley Buxton, of London, has recently eulogized Long and his discovery before the Royal Society of Medicine. The University of Pennsylvania, with appropriate ceremonies on March 30, 1912, placed a bronze medallion in one of her halls, representing Long anaesthetizing his first patient. The State of Georgia has selected Long and Stephens as her two most distinguished sons to represent her in Statuary Hall in Washington City.

Editorial.

DR WILLIAM. C. GORGAS AND HIS WORK.

At the commencement exercises of Johns Hopkins University, June 11th, ult., the honorary degree of Doctor of Laws was conferred on Col. Wm. C. Gorgas, M. C., U. S. A., the following very appropriate remarks were made by Dr. William H. Welch:

"In behalf of the Academic Council I have the honor to present for the honorary degree of Doctor of Laws, Dr. William Crawford Gorgas, Colonel in the Medical Corps of the United States Army, member of the Isthmian Canal Commission and chief sanitary officer of the Isthmian Canal Zone, formerly President of the American Medical Association, physician and sanitarian of the highest eminence, who by his conquests of pestilential diseases has rendered signal service to his profession, to his country and to the world. With high administrative capacity and with full command of the resources of sanitary science Colonel Gorgas has given to the world the most complete and impressive demonstration in medical history of the accuracy and the life-saving power of our knowledge concerning the causation and mode of spread of certain dreaded epidemic and endemic diseases. He it was who, by application of the discoveries of Major Reed and his colleagues of the Army Yellow Fever Commission, was mainly instrumental in freeing Cuba of yellow fever, and he it is who, in spite of obstacles and embarrassments, has made the construction of the Isthmian Canal possible without serious loss of life or incapacity from disease—a triumph of preventive medicine not surpassed in importance and significance by the achievements of the engineer. In the conquest of science over disease, in the saving of untold thousands of human lives and human treasures, in the protection of our shores from the once ever-threatening scourge of yellow fever, in the reclamation to civilization of tropical lands—in results such as these are to be found the monuments of our laureate, his victories of peace, to which this university now pays tribute by such honor as it can bestow."—*Jour. of A. M. A., June 22, 1912.*

At the recent annual commencement of the University of the South, his visit and oration will long be remembered by those who were so fortunate to be present at Sewanee as an epochal feature in the history of this, his Alma Mater, on the top of Cumberland plateau.

The first editorial article in "*The Dietetic and Hygiene Gazette*," Vol. XXVIII; No. 6; June, 1912, under the head of "*An Ideal Health Resort*," is as follows:

"The scheme of a canal through the Panamanian Isthmus was comprehensible even to Balboa and Charles V., although they had not our present-day maps before them; they could not have known definitely of the two vast continents which were joined by this narrow strip of land.

"Since then many discerning men (the greatest among whom was De Lesseps) have well recognized the overwhelming importance of such a waterway. Not only the Western world, but all civilization

through centuries past has needed the canal; for European commerce, seeking to reach Pacific markets, both our own and those in the Orient, would thus find a direct passage for its ships, without having to make a most extensive detour and one which should be occasionless. It is a work absolutely unprecedented in history for the material benefits which we and future generations will derive from it. This canal, after most disheartening failures, has now for several years past been successfully building. Its completion is now a matter of months rather than of years. The epic undertaking is four-fifths accomplished. Ships will pass from the Atlantic to the Pacific by this waterway probably in 1913, certainly in 1914.

"To what essential factor have the failures of previous enterprises been due; what is it which have now made possible the fulfillment of this colossal enterprise?

"The canal zone has, up to the last few years, been one of the most unhealthful spots in nature. Humboldt, a century ago, after a visit in which he studied the conditions, expressed his belief that the isthmus must always be cursed by yellow fever and malaria; the former, as he understood it, was caused by the decaying molluscs and marine plants on the beach at low tide; malaria was by reason of foul emanations from ever-rank vegetation. Froude, that master of superb and expressive diction, declared that nowhere else in the world was there concentrated in a single spot so much foul disease; nowhere such a dunghheap of moral and physical abomination. De Lesseps failed at Panama largely by reason of the hopeless insalubrity of the isthmus in his time. It has been said that in the construction of the trans-isthmian railway, from Colon to Panama, every cross-tie represented the tombstone of an employee.

"Since then have come to pass the martyrdom of Lazear; and the work of Reed and Carroll, by which the health of these devoted men was greatly impaired, and the natural span of their lives greatly shortened. By reason of their labors and those of Guiteras and Agramonte and others in Cuba in 1900 and 1901, the epidemics of yellow jack and malaria, which used to visit our seaboard cities, are now but hideous memories; nor need anyone among our people fear a pestilent invasion from the tropics. Such achievements were prefatory to that in the canal zone.

"It is Gorgas and his associates who have made the Panamanian Isthmus as infection-free as any area in these United States; and much more healthful than a great many. The last case of yellow fever occurred in Panama several years ago. During 1907 Gorgas had not a single case of bubonic plague to deal with; in that year

he had but one death from the erstwhile common smallpox; he had a 50 per cent. reduction in 1904 from malaria, dysentery, pneumonia and other grave diseases. His death-rate in 1907 was more than 31 per cent. lower than in 1906. In the region over which he has had medical jurisdiction (the canal zone and the cities of Panama and Colon), he has been charged with the health of many thousands of men, from most varied parts of the earth, engaged in digging through the swamp regions of what has been historied as perhaps the most unhealthful part of the globe. During March, 1907, he had under observation 36,000 employees, with 122 deaths; during the corresponding month in 1908, he supervised 43,000 men, with only 45 deaths. His mortality for March, 1908, was less than that of the city of New York, which is among the lowest, urban or rural, in civilization.

"The 1910 death-rate for these United States, for all classes in all climates, was 16.1, nearly 4 deaths per 1,000 more than that year's death-rate for the poorest class of laborers in the canal zone. The white employees in Gorgas's jurisdiction, about 12,000 of them, yielded 5 deaths from disease and 2 from violence—a total annual death-rate of 6.82 per 1,000. In 1910 the American community having the lowest death-rate (8.5) was West Orange, N. J.; whilst the highest death-rate, that of Charleston, S. C., (29.7), was over four times the rate among white employees on the isthmus. Eleven thousand eight hundred and thirty-nine white men, women and children from the United States are now living comfortably, safely and jocundly in what was but a few years ago the most pestilent area in probably all the cosmos; and their annual death-rate, as indicated by the mortality for October last, was 2.03 per thousand.

"Compliments are flying over the isthmus sanitation almost as fast as the dirt. Sir Frederick Treves, the late King Edward's physician and surgeon, after a recent visit to the canal zone, considered that the United States has every reason to be more than proud of that work and of its medical director, Col. Gorgas. Gen. Baden-Powell, who, with Dr. Treves, visited Panama, praised also this prodigious feat in sanitation. To Col. Goethals is also due praise without stint; it is he who has pushed to success all other phases of the canal work, such as is exciting the wonderment and the hearty appreciation of European engineers; and he has manifested no greater wisdom than in his furtherance of the dispositions of his medical colleague.

"The completion of the canal is now assured; nor should anyone have to be reminded that this enterprise of the ages could never have been consummated had not devoted and zealous men so superbly applied to hitherto ghastly tropical conditions the knowledge and resources of medical science. The bacteriologist is indeed the scientific

missionary of this era; when he has done his work, but not until then, may the rest safely follow into regions where, but for him, disaster and death, by all historic precedent, were the inevitable fate."

PRESIDENT-ELECT OF THE AMERICAN MEDICAL ASSOCIATION—JOHN A WITHERSPOON, M. D.

For the fourth time in its eventful history since its initial meeting in 1847, this representative organization of the Regular Medical Profession in the United States has honored a citizen of the capital city of the Volunteer State by (unanimously in this instance), electing him to the Presidency. Of the sixty-four members who have held this honorable position in the existence of the Association, that four have been selected from the physicians of this locality is a most creditable recognition of the high standing of its medical men by their colleagues throughout the wide and verified domain of our great country; and the elder Eve, with his international reputation; the courtly and courteous Bowling; the tireless and energetic Briggs, who have occupied so enviable and prominent a position in the years respectively of 1858, 1875, and 1891, will have a most able and worthy successor in 1913 in the person of Dr. John A. Witherspoon.

Dr. Witherspoon was born near Columbia, Tenn., forty-eight years ago, obtaining his literary education in the private schools of his locality and at Beemore School in West Tennessee, he received his medical education in the Medical Department of the University of Pennsylvania, receiving his degree of M. D., in 1887; in his third year he was made assistant demonstrator of anatomy, on account of his proficiency. He practiced medicine at Columbia for several years, coming to Nashville a little over twenty years ago to accept the chair of Principles and Practice of Medicine in the Medical Department of the University of Tennessee; and in 1895, on the separation of the Medical Department of the Vanderbilt University from that of the University of Nashville, he was made Professor of Principles and Practice of Medicine and Clinical Medicine in Vanderbilt University, which position he has held since that date with great credit to himself and the institution.

For nearly a quarter of a century he has been an active, earnest and energetic member of the Nashville Academy of Medicine, the Tennessee State Medical Association and The American Medical Association, obtaining the high honor of President of each one of these medical organizations, by reason of his efficient and capable work in each; regular—we may say constant in his attendance; always ready

and willing for any duty or service required of him; modest, courteous and kindly in his manner; eloquent and lucid as a speaker; earnest and tireless as a student during his whole career, he could always be depended on for wise and timely counsel, and he is to be congratulated on securing appropriate recognition of his worth and work.

The J. A. M. A. in an editorial, June 15th, ult., has the following: "For nine years he served as a member of the Council on Medical Education of the A. M. A. He has been a member and president of the American Medical College Association, the Tennessee State Medical Association, the Southern Medical Association and the Mississippi Valley Medical Association. At the International Medical Congress at Budapest Dr. Witherspoon was selected to deliver the oration in the ceremonies at the unveiling of the statue of George Washington. Dr. Witherspoon is a man of strength, whose power impresses every one with whom he comes in contact, but, withal, he is a soft-spoken, courteous, chivalrous, typical Southern gentleman. No man is more beloved in the South than he, and yet no man has done so much to stir up the physicians of his section or to encourage them to higher standards, ethical and educational. The wisdom of the choice of Dr. Witherspoon as President-Elect of the Association is unquestionable. His lovable personal characteristics, his strength and ability, his broad grasp of the advanced medical problems of the day, all combine to make him a welcome leader for the coming year and acceptable to the profession the country over."

The Nashville Academy of Medicine and the Nashville Board of Trade will give a banquet and reception in his honor on the evening of July 3rd, inst. in this city; and have placed in charge Drs. Duncan Eve, M. M. Cullom and Wm. McCabe of the Academy of Medicine; and Messrs. J. Garland Tinsley and Frank Fite of the Board of Trade, to either of whom any of his professional or secular friends desiring to be present can communicate, personally or by mail.

INFECTION AND RECOVERY FROM INFECTION.

A most excellent, practical and very valuable lecture on this subject was delivered by Simon Flexner, M. D., at Washington, D. C., Feb. 8th, ult., under the auspices of the Hamilton Fund of the Smithsonian Institute—the "Hamilton Lecture," which was published May 29th, ult., as Vol. 59, No. 8, of the Smithsonian Miscellaneous Publications—it being *Publication No. 2083*, issued by the "Lord Baltimore Press," of Baltimore, Md.

It is a very clear summing up of the wonderful progress attained along the lines of bacteriological studies, so important in the control of infections. It is the most comprehensive yet condensed statement of what has been accepted that we have yet seen, and will well repay a careful perusal by anyone interested in Medical Science and Progress. We greatly regret that our space prevents our presenting it in its entirety—comprising 12 8vo. pages, with five full page plates, to our many readers; however, we cannot resist the following brief extracts:

"The most notable advances that have thus far been made in the medical sciences relate to the discovery of the class of infectious diseases and the mode of their conquest. Infectious diseases are those diseases that are caused by the entrance into and multiplication within the body of minute, so-called microscopic, parasitic living beings.

"Disease-producing parasites belong to the two great classes of living things; namely, animal and vegetable. The greater number now known are vegetable in nature and are included among the bacteria, but a large number also are animals and of protozoal nature. Just as there are harmless and even useful protozoa that never under any circumstances act as causes of disease, so there are many bacteria of similar innocuous or useful habits.

"Bacteriology as a science may be reckoned as dating from the overthrow of the spontaneous generationists and the discovery by Pasteur of the cause of *pebrine* among silkworms. It was quickened into active life and brought down to every-day use, and thus immeasurably extended, by Koch. We are, as it were, still living within the era of its first achievements, and thus we may reasonably hope that this is merely the dawn of its beneficent triumphs."

THE MALARIAL ANEMIC:—Whether or not the much maligned mosquito is the intermediate host of the plasmodium malariae, certain it is that the campaign waged for this insect's extermination has not entirely ridden the country of the blood infection for which it is responsible. In addition to the chills, fever and sweating characteristic of the acute forms of the disease, which require immediate antiodotal treatment, the physician must recognize the serious injury to the blood itself, due to the invasion and actual destruction of the red cell by the paludal organism. After the subsidence of the acute symptoms, a distinct globular anemia is the result, and unless this

is corrected, a reinfection is extremely likely. To prevent this and to avoid the development of a chronic malarial toxemia, a vigorous blood building campaign should be instituted just as soon as the febrile movement is controlled. For quick and efficient reconstruction of the partially disintegrated red corpuscles and to encourage the rapid formation of new and functionally active erythrocytes, Pepto-Mangan (Gude) is especially serviceable. Steady treatment with this potent hematinic, for a period of several weeks, is practically certain to restore hemic integrity and place the patient in a position to ward off fresh infection, or quickly throw it off if invasion occurs. When the physician believes that arsenic is needed in the after-treatment, this drug can be readily added to Pepto-Mangan (Gude) preferably in the form of Fowler's Solution.

MALARIAL CONDITIONS:—For all malarial conditions quinine is the best remedy we have. But associated with this condition there is always more or less pain, which often renders the life of the individual uncomfortable, if not positively miserable. Antikamnia will remove these unpleasant symptoms and place the system in the best condition for the quinine to do its work. There are a number of ailments, not closely defined, which are due to the presence of the malarial poison. All such conditions are greatly benefited by the use of antikamnia and quinine. In headache (hemicrania), in the neuralgias occurring in anaemic patients who have malarial cachexia, and in a large number of affections more or less dependent upon the cachectic condition, the regular administration of this combination will produce the most happy results. In cases of malarial fever it should be given as a prophylactic and cure.

"Antikamnia and Quinine" are put up in tablet form, each tablet containing two and one-half grains of antikamnia and two and one-half grains of quinine, and this is the most satisfactory mode of exhibition.

"I WISH TO EXPRESS my great appreciation of Tongaline for I find that with it I can correct cases of rheumatism which are not susceptible to any other line of treatment.

"Last month I told my County Society that I believe Tongaline is by far the very best remedial agent that has ever been devised for the particular diseases for which it is intended.

"I am constantly using Tongaline and getting the most satisfactory results."

THE HAY-FEVER RIDDLE:—Despite the many therapeutic advances of recent years, "what to do for the hay-fever patient" continues to be something of a puzzle. The long-sought specific still eludes us. Nevertheless, the malady is not quite the enigma that it once was. Medication, if still empiric, is not ineffective. The symptoms of the disorder can be controlled or minimized; relief, though temporary in many cases, may be obtained; and for these blessings the afflicted patient and the sympathetic physician may well be thankful.

For use in the treatment of hay fever there is, of course, a long line of so-called available medicaments. One dependable agent which comes naturally to mind in this connection is Adrenalin. Indeed, it is doubtful if any other single medicinal substance has been so largely and successfully employed in the treatment of vasomotor rhinitis. As adapted to the needs of the hay-fever sufferer the product is available in a number of convenient forms, as Adrenalin Chloride Solution, Adrenalin Inhalent, Anesthone Cream, Anesthone Inhalent, Anesthone Tape, etc. The various solutions are used in spraying the nares and pharynx, the cream for snuffing into the nostrils, the tape for packing the nostrils. All cases of hay fever, of course, are not amenable to the same form of treatment. It is a logical presumption, however, that a vast majority of them ought to yield to one or more of the preparations above referred to. The Adrenalin products, as is well known to most physicians, are manufactured by Parke, Davis & Co., who will doubtless be glad to send literature regarding them to any practitioner. Requests for printed matter may be addressed to the company at its main offices and laboratories in Detroit, Mich.

A NATIONAL SOCIETY OF ANESTHETISTS.

On June 6th, ult., at Atlantic City, during the meeting of the American Medical Association and following a symposium on anesthesia, the National Society of Anesthetists was organized. Prof. Yandel Henderson of Yale, Chairman of the Commission on Anesthesia of the A. M. A. occupying the chair, those assembled for the symposium acting as a committee of the whole, proceeded, to organization and elected the following officers for the year 1912-1913: President, James T. Gwathmey, of New York; Vice-Presidents, Charles K. Teter of Cleveland, F. H. McMeechan of Cincinnati, Yandel Henderson of New Haven; Secretary, William C. Woolsey, 88 Lafayette Ave., Brooklyn; Treasurer, Harold A. Sanders, of Brooklyn.

The constitution and by-laws were ordered to be drawn by the executive committee and submitted to the Society for its next meeting for adoption; all names submitted for membership, if qualified

in the estimation of the executive committee, shall be considered as charter members if presented within a period of sixty days and accompanied by the levied due of three dollars.

The National Society of Anesthetists calls on all those who are actively interested in this work to join its ranks and assist in developing the subject of anesthesia to greater perfection and more uniform safety.

SELECTION OF A TONIC:—The greater care and thought being devoted to the use of remedies in disease is heartily to be commended and there can be no question but that the vastly superior therapeutic results that medical men are uniformly obtaining to-day are the direct outcome of the broader grasp of drug action. Take for instance, the successful application of tonic medication. No physician at the present day would think of administering any potent restorative or reconstructive remedy without paying due consideration to the following essential details:

First. The avoidance of any remedy which from its nature of ingredients would tend to unduly stimulate or excite the higher nerve centers.

Second. The avoidance—except when specifically indicated—of any remedies which suddenly and markedly raise the blood pressure.

Third. The avoidance of reconstructive measures except in rare instances, which do not have a well defined permanence of action, or which must be constantly increased in quantity, or continued indefinitely, in order to secure their beneficial effects.

Fourth. The avoidance of remedies containing drugs which are apt to produce dangerous or toxic effects as a result of some possible idiosyncrasy on the part of the patient.

Careful investigation on the part of the careful practitioner will enable him to see that of all the tonic remedies at his command, Gray's Glycerine Tonic Comp. is one of the few that can be freely employed with certainty that all of the foregoing requirements have been met.

As a matter of fact, clinical experience has clearly demonstrated that one of the strongest features of Gray's Glycerine Tonic Comp. is its practical freedom from any contraindication of age, sex, season or personal idiosyncrasy. It is a thoroughly reliable tonic that accomplishes its effects solely through stimulating the physiologic functions of the body. As a consequence its whole action is to restore a nearer normal balance between physical waste and repair; in other words, the proper nutrition of the whole body. Under its use every

function is promoted and helped to do its normal amount of work, with all that this means in the maintenance of physical health and vigor.

RECONSTRUCTION FOLLOWING TYPHOID FEVER:—In some instances, the convalescence of typhoid fever presents a debility closely akin to a tuberculosis predisposition, which indicates the need for more potent reconstructives than the stomachics and tonics usually employed for this purpose. This need is well met by Cord. Ext. Ol. Morrhuæ Comp. (Hagee). Usually in these cases the blood stream is thin, the processes of metabolism are interfered with and the vital powers remain far below par. The tissues are easily susceptible to graver infections, such as tuberculosis. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) will prove its worth as an up-builder in this class of cases, charging the blood current with nutritious elements and finally overcoming the debilitated state. Its palatability gives it added utility, a feature worthy of consideration in choosing remedial agents of this character.

CARBO-HYDRATES IN INFANT FEEDING:—For many years strong claims have been made regarding the advantages of maltose—the predominating carbo-hydrate in Mellin's Food. Physicians who have not made use of Mellin's Food in the modification of milk will find much to substantiate these claims by reviewing recent pediatric literature. The unvarying amount of Maltose as given in the analysis of Mellin's Food, (this analysis will be sent to any physician on request), enables one to so modify milk that any percentage of this carbo-hydrate, best suited to the needs of the individual infant, may be readily obtained. The carbo-hydrate, best suited to the needs of the individual infant, may be readily obtained. The carbo-hydrate content of Mellin's Food answers all the requirements for a sugar in infant feeding.

SEND FOR IT:—During the summer months when intestinal trouble is so common in infants owing largely to the changed condition in cow's milk, it is a good idea to put all bottle fed babies on Lacto Preparata, an all milk infant's food, which does not require the addition of milk to make it nutritious. Reed & Carnrick, of Jersey City, N. J., who make Lacto Preparata, have a little book on the baby's care, which they will be pleased to send upon request.

A SUGGESTION OF TETANUS:—The physician who has ever faced the horror of tetanus and has seen his ministration go for naught, will not hesitate to add to this disease's classic treatment, any agent holding out even the faintest ray of hope. Quite a number of physicians have employed *Pasadyne*, (Daniel's Concentrated Tincture of *Passiflora Incarnata*), in tetanus and some have reported favorably on it. It is advised, therefore, that *Pasadyne* be employed as an adjunct treatment in this disease. It possesses marked calmative powers, and may mitigate the distressing convulsive seizures of this dreaded infection. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

PEPTOGENIC POWDER (*Fairchild's*) is not of itself an "infant food"; is not to be used by itself as a food. It is offered, advocated and believed in for the one purpose of modifying cows' milk, quantitatively, to an approximation with human milk. This method of infant feeding is based upon the most modern and exhaustive comparative analysis of cows' and human milk—affords a biological, scientific and successful food.

Milk prepared with Peptogenic Powder and ready for feeding has to a very striking degree the physical, physiological and chemical characteristics of normal human milk; *is absolutely free from any digestive agent; has nothing whatever "along with it" to help the baby's digestion; contains nothing foreign to milk.*

HAY FEVER SERUM FROM DUCKS:—From a recent number of "*Popular Mechanics*," we get the following, which, however, we sincerely hope will not be regarded as an approach even to "quackery":—

"Horses, reindeer, cows, goats, camels, and even snakes, together with many other animals, have been pressed into service by medical science in the production of serums for the prevention of epidemic diseases.

"Now ducks are being used by the French physicians in the development of serum effective against hay fever and asthma. This is the first time, according to the French scientific magazine *Cosmos*, that winged creatures have been used for such purposes."

HONORARY DEGREE CONFERRED:—At the eighty-first annual commencement of Wesleyan University at Middletown, Conn., held on June 19th, the degree of doctor of laws was conferred upon Dr. Amos J. Givens, proprietor of Givens Sanitarium for nervous diseases at Stamford, Conn.

ARMY MEDICAL CORPS:—Preliminary examinations for the appointment of first lieutenants in the Army Medical Corps will be held on July 15 and September 3, 1912. The essential requirements for admission to the examination are that the applicant shall be a citizen of the United States, between 22 and 30 years, a graduate of a medical school, of good moral character and habits, and with at least one year of hospital training after graduation. Full information concerning the examinations can be procured upon application to the "Surgeon General, U. S. Army, Washington, D. C."

GLYCE-THYMOLINE is offered to the medical profession as a scientifically constructed cleansing solution based on the alkalinity and saline strength of blood, for the treatment of catarrhal conditions of mucous membrane.

It is of the correct specific gravity to promote exosmosis, thus detaching mucous crusts and mucous, at the same time maintaining asepsis without irritation.

It is indicated in affections of mucous membrane wherever located, proving specially beneficial in the treatment of catarrhal conditions of Nose, Throat and Mouth. For use it is generally diluted to a 25 per cent solution, one part of Glyco-Thymoline to three of water, always use warm in the nose.

PREVENTION OF TYPHOID FEVER:—The greater prevalence of typhoid fever in the late summer and early autumn months has long been a matter of clinical observation; and we are exceedingly gratified to place before our readers in this issue the most excellent and practical article of Dr. Wm. Litterer, whose careful, reliable and authoritative work in Pathological Bacteriology is well recognized by his professional colleagues. We most heartily endorse his conclusions, which are thoroughly sustained by the latest advances in the lines of serum therapeutics and prophylaxis.

COMPLETE CLINICAL REPORTS of experiments made by the physicians of the Board of Health of Rome, Italy, during October, 1911, upon many cases of malaria, will be mailed upon request to any address by applying to The Pam-Ala Co., 10 and 12 Christopher St., New York, N. Y.

IN THE GASTRO-INTESTINAL derangements of young children, the profession will find Elixir Maltopepsine, Tilden's, a most excellent curative, astringent and antacid remedy.

In a recent case the use of *Tilden's Elixir Iodo-Bromo Calcium Comp.* has given us the same excellent results that *have been the rule* for the past forty years.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

Selections

SHORT ORDER INSTRUCTION:—Wright of opsonic index fame, tells the following story as being presumably illustrative of the eagerness of Americans to find short cuts of learning.

An American physician bustled into his laboratory one day, handed over his card, and announced that he had come to learn the whole works. Wright suavely assured him of his willingness to teach him the essentials and suggested that in four or five weeks considerable progress could be made. "Four or five weeks!" exploded the American, "Why, Great Scott, man, my wife is waiting outside for me in a taxicab."—*Am. Jour. of Dermatology.*

VENESECTION.—R. Fortescue Fox states in the *Lancet* that this ancient method of treatment, which so suddenly disappeared from medical practice, has been again employed in a guarded manner and with good results in a variety of cases. The chief indication for venesection is cyanosis with distention of the right heart. To this is attributed its beneficial action in mitral disease and in some cases of bronchitis and pneumonia. No mere mechanical relief to the heart can, however, explain the observed effects. Venesection in some cases appears to influence in a favorable manner the progress of specific disease, both acute and chronic, probably by heightening the natural resistance of the tissues; it helps to restore the balance of the circulation and the normal distribution of the blood by a dilator effect on the arterial system; a small venesection may have a powerful and apparently disproportionate influence, not only in quieting the circulation, but the nerve centers also. This is witnessed in uremic coma or convulsions and in the crises of pain and dyspnea in aneurysm. Excessive blood pressures have been more or less permanently reduced by venesections far too small to produce such effects in a direct manner. Such facts as these suggest that the respiratory and vasomotor centers are concerned in these actions; and that there are, in truth, morbid states of the circulation and the nervous system, both acute and chronic, which are in some unknown manner peculiarly sensitive to a slight reduction in the amount of the circulating blood.—*Medical Standard*.

GYNECOLOGICAL HINTS:—Sepsis in most puerperal cases starts as wound infection at the vulva or lower end of the vagina, and can generally be prevented by moistening the vulva pads with a bichloric solution 1 to 5,000. This should be continued for about five days.

The umbilical cord should not be cut until after it stops

pulsating, especially when the labor has been severe. Many infants have been injured by too much violence during resuscitation.

A woman should not be starved after delivery. The more food she is given within reason, the better.

The breasts should never be massaged or pumped, as disregard of this caution may lead to mammary abscess.

In a general way secondary operations on the perineum should not be performed until the end of at least two months. If they are performed earlier the lochia are apt to interfere with union. It is not necessary to stop nursing an infant for more than a few hours following operations on the perineum.

After all operations on the perineum the bowels should be kept freely open.

When possible it is best to operate for laceration of the perineum before the placenta has been delivered. There is less annoyance from bleeding. The best material in chromicized gut No. 3. It cuts less than silkworm gut and does not annoy the patient so much. The sutures should not be drawn too tight, for there is always swelling of the parts that will cause strangulation. A very good needle to use is a full curved three-inch Hagedorn.—*Ralph Waldo, M. D., of New York, in International Jour. of Surgery.*

LATE EPILEPSY:—C. Migliucci has seen a number of cases in which epilepsy, not of the Jacksonian style, came on in later life, that is after thirty years of age, without any history of injury. These are cases similar to those that occur in earlier life, with the same form of attacks, and the same course. The author questions whether these attacks are not caused by syphilis. There can be no doubt that in some of these cases syphilis is the etiological factor, and the author questions whether this is not always the case. In young children epilepsy has for its cause some radical defect in the psychocerebral development by virtue

of which the child does not react normally to its environment. Alcohol in itself would not cause epilepsy if there were not at its basis a disturbance of the nutrition of the nervous system. A syphilitic intoxication aside from any lesions of the nervous system may act as a cause of late epilepsy. In some cases there are lesions of the vessels of a syphilitic nature, giving conditions which may be placed midway between cerebral syphilis and general paresis. Some authors liken these disturbances to the appearance of the secondary skin symptoms, and think that they take their place, being due to infiltration of the meninges with syphilitic new tissue growth, the infiltrations being so small as not to be visible except to the microscope. Syphilis in a predisposed individual has been the last factor to cause cerebral irritation and the manifestation has been an epileptic one.—*Giornale Internazionale delle Scienze Mediche.*

ELECTRICITY AND ANIMAL GROWTH:—The experiments carried on by Sir Oliver Lodge, near Evesham, to test the stimulative effects of electricity on growing crops are fairly well known, and the results, so far as certain forms of vegetable life are concerned, have been satisfactory, a considerable addition to the yield has been secured by the use of electric currents set up by overhead wires. These observations suggested that electricity might be found equally stimulating to animal growth, and in the official Journal of the Board of Agriculture reference is made to experiments on these lines carried on by Professor Silas Wentworth of Los Gutos, California, at his experimental farm on a ranch near Roseville. The report states that a flock of 2,000 sheep was divided, one-half being placed in a field under the power wires of an electric wire company, while the other half were removed from electric influences. In the field under the electric power line the production of lambs averaged a fraction over two lambs to each ewe. In the ad-

joining field where electrical influence was lacking the lamb average was rather less than one to each ewe. The fleeces from the sheep in the electrically influenced field proved 20 per cent. heavier. Professor Wentworth thus claims that the electric influence on animal life "will more than double the production of lambs and generally increase the yield of wool."—*British Medical Journal*.

PRECOCIOUS PUBERTY AND OVARIAN TUMOR:—Dr. Verebely (*Wiener klin. Wochensch.*, No. 13, 1912) reports the case of a girl, six years old, who up to five years of age had developed normally. Since a year hemorrhages had recurred monthly and other signs of puberty had appeared. The child was about four inches taller than one of a corresponding age, and the breasts, which were the size of lemons, contained glandular structure. In the axilla as well as the pubic region there was an abundant growth of hair. The labia were thick and pigmented, and the vagina of abnormal size. Examination of the abdomen revealed a nodular tumor of the size of a child's head connected with the left side of the uterus. At the operation a very vascular ovarian sarcoma was found. The uterus was of the size of that of an eighteen or nineteen year old girl, the right ovary being normal. After operation the hemorrhages ceased, the hair fell out, and the breasts receded in development. The only sign of precocious puberty left was the deeper quality of the voice. The author states that such cases are rare, and he has been able to find only 126 in the literature, in but two of which the condition was due to a tumor.—*Internat. Jour. of Surgery*.

A FELON should be aborted by covering the end of the finger with cotton saturated with alcohol, and then excluding the air by drawing over all a rubber finger cot.—*American Journal of Surgery*.

PHILLIPS' MILK OF MAGNESIA (MgH_2O_2)

An Efficient Antacid and Corrective.

Useful in the Gastro-Intestinal Irritations of Infants, Child and Adult Life

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EDITOR AND PROPRIETOR

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Original Communications.

CASE REPORTS,*

BY LUCIUS E. BURCH, M. D., OF NASHVILLE, TENN.

1. *Para-Typhoid Infection of Gall Bladder followed by Hepatic Abscess and Amebic Dysentery*; 2. *Fracture at elbow*; 3. *Femoral Hernia*; 4. *Extra Urine Pregnancy*; 5. *Osteo-Myelitis of Femur*; 6. *Concretions in Gall Bladder and Common Duct.*

S. W. Age 22, occupation, grain dealer and farmer.

Family History: Father living Mother dead of Pneumonia following measles. Had the usual diseases of infancy, except measles. Seven years ago, however, had measles, which was followed by pneumonia. Never had Typhoid.

*Read at regular meeting of Nashville Academy of Medicine, Tuesday, June 25, 1912.

Personal History: General History Negative. Uses alcohol, tobacco and coffee moderately. Was perfectly well until July, 1909. For the first fifteen days of July he continued regularly at his work, but was feeling quite badly. Had no appetite, stomach was out of order, nervous and generally depressed. Last fifteen days of the month was confined to his room, feeling, however, pretty good in the cool part of the day, but could not stand the sun at all. Had an occasional chill, was quite weak and had swimming of the head. Had rise of fever all the time. This fever continued until October, when he had to go to bed. Then he had an occasional chill. The fever continued daily, higher in earlier part of the night. Patient did not have an ache or pain, but absolutely no appetite, bad color and lost a great deal of flesh. Was taken to St. Thomas' Hospital, November 15th., and placed in charge of Dr. J. A. Witherspoon. The blood was examined after he was brought to the hospital, showing no malaria and several Widal tests were made with a negative result, also several tuberculin tests were made with negative results. In the early part of December he developed pain in the region of the gall bladder. This pain was colicky in character, and occasionally quite severe. I was called to see him in consultation with Dr. Witherspoon, and found him with a marked tenderness over the gall bladder which was somewhat enlarged. The temperature rose in the afternoon to 103, and in the morning dropped to 99½ or 100. He had some chilly sensations and also sweats. An examination of the blood showed a marked Leucocytosis. We advised an operation, to which the patient consented. On December 19th., the abdomen was opened and the gall bladder drained. The contents of the gall bladder showed a creamy pus, which is rather unusual in my experience. The appendix was also thickened, and this was removed. We noticed that the ileum and caecum showed indurated and inflamed areas over the surface at several points which looked very much like intestinal ulcers. The contents of

the gall bladder were sent to Dr. Litterer, and he reported that it contained a pure culture of the para-typhoid bacillus. The temperature immediately dropped and the patient felt a great deal better. He continued to improve for about eight days, when the temperature again began to rise. In about a week's time he complained of a pain over the region of the liver. In the course of a few days a marked tenderness developed at this point, with slight bulging in the intercostal spaces. The blood count showed a marked Leucocytosis. We diagnosed the condition as abscess of the liver, and advised operation, to which the patient consented. Before operating an aspirator was introduced between the ribs and pus, black and tarry in character was withdrawn. The patient was taken to the operating room, two ribs resected and the cavity drained. This abscess cavity was in the liver substance. The contents of the abscess were also sent to Dr Litterer, and he again reported the para-typhoid bacillus. The patient made an uneventful recovery, remained perfectly well for four months, and then developed a frequent action of the bowels with tenesmus, associated with a passage of blood and mucous. This would get better for a few weeks and then come back. In October he returned to me and on proctoscopic examination many ulcers were found in the lower bowel. One of these was scraped with a curette, the scraping placed on a warm slide and the amoeba were easily discovered by Dr. Litterer. The patient was placed under treatment and improved and returned to his home. In a few months, however, the condition again returned, and his family physician placed him on the Ipecac treatment in descending doses, which brought about a complete cure of the condition. The interesting features of this case were the long duration of the fever, the complications that the para-typhoid bacillus produced and later on being followed by an infection with the amoeba. The operation also disclosed some interesting pathology that para-typhoid produces, namely, intestinal ulcers which resembled to the

naked eye the ordinary typhoid ulcer. This case also demonstrates gall bladder infection with abscess of the liver, and how necessary it is for the laboratory man, the internist and the surgeon to work hand in hand to make an accurate diagnosis and bring the case to a successful conclusion.

Case 2. This is a case of a T. fracture in the elbow joint due to a fall from an automobile, striking the part on a stone pavement. The first X-Ray plate shows a marked displacement of the fragment. The second shows the good effects of an acute flexion of the arm*. In my opinion, the secret of success in the treatment of fractures is, first, to bring about a complete reduction, the apparatus for holding it playing a minor part. If it is impossible for the fragments to be kept in fairly good position, then an open operation is indicated.

Case 3. This case is one of femoral hernia, reducible and in which a satisfactory truss had been worn. Strangulation occurred and had existed for thirty hours at the time of operation. The specimen shows the knuckle of gut that was in the hernia with gangrene of the part, which had extended to the surrounding intestines for a distance of thirty inches, making a resection necessary. On account of the serious condition of the patient, a Murphy button was used for the anastomosis instead of sutures. On the morning after the operation the patient had a good bowel action with a passage of considerable gas. However, she never rallied and died thirty-six hours after. Postmortem showed that the line of union was good, and that death was due to shock and toxæmia. This case shows how dangerous even an innocent hernia may be, and how quickly dangerous complications may appear. I believe that Taxis is contra-indicated in all cases of acutely strangulated or incarcerated hernia, for the reason that dangerous complications may be brought about on account of injury to the diseased part. I further believe that it is much safer at the present time for the ordinary hernia in a young person with a sound body to be operated on than the truss treatment. However,

*Plates exhibited to the Academy.

all conditions should be explained to the patient, and he be allowed to select either operative or truss treatment.

Case 4. Age 31, M. M. occupation Cook.

Family History: Father died of old age, Mother of tuberculosis, one sister died of tuberculosis. Patient had lost some flesh in the last year, and noticed that her abdomen was getting a little bit larger. She had had the usual diseases of childhood.

Menstrual History: Had always been regular until last year, when she noticed that the flow was very light in character, each succeeding month getting less and less, and two weeks before entering the hospital when her period was due, it failed to appear at all. For two weeks she was unable to hold anything on her stomach, associated with a headache and spots before the eyes. Dr. J. T. Altman was called and moved her to the Vanderbilt Hospital, where I saw her in consultation. An examination of the urine showed many granular casts, urea 1.3 per cent. On digital examination the cervix was found to be hard with a mass to the left. This mass was of about the consistency of a normal uterus, and we were in doubt whether the uterus was flexed laterally or not as we could not find the fundus. The patient was kept under observation a few days with no improvement in the stomach symptoms or urinary findings, so an operation was decided on. After the patient was placed under the anæsthetic, a digital examination was made, and it could be determined then that the mass was separate from the uterus, and that the uterus was quite small and in its normal condition. Operation disclosed the specimen which I present, which is an unruptured, extra uterine pregnancy. In addition to this it was discovered that the whole peritoneum was covered with tubercular nodes and considerable free fluid. The interesting features of this case are the lack of pain, which is usually characteristic of extra uterine pregnancy, also the absence of an irregular uterine flow. It also demonstrates that the extra uterine pregnancy can produce the sam.

pernicious vomiting of pregnancy as the normal. The patient was admitted on the 23d. of April and was dismissed from the hospital on the 11th. of May. On the day of dismissal the urine had entirely cleared up and the stomach symptoms had almost disappeared. The patient, however, had rales all over both lungs, and this, in connection with the tubercular peritonitis, makes permanent recovery doubtful. In fact I believe death will occur in a short time.

Case 5.

Family History: C. A. age 18. Patient had one brother to die of tuberculosis three months ago. Otherwise family history negative.

Previous History: Patient had ordinary diseases of childhood. No typhoid. About six years ago patient's right knee began to pain him. He noticed it one afternoon and the next morning it was very much swollen and painful to touch. His parents treated it with an application of hot ashes for about three months, then an incision was made and considerable pus evacuated. Since that time the wound has been continuously discharging, many new openings appearing around the knee joint. The patient was able to be up and about on crutches at various intervals. I saw the case with Dr. Blair and found him to be in quite an anaemic condition; haemoglobin 55 per cent., red blood cells 4,500,000, white blood cells 75,000, urine normal. There were twenty-five fistulous tracts around the knee joint, and a probe introduced through them came in contact with diseased bone. An amputation was decided on and carried out, going through the upper third of the thigh. After the bone was sawed through it was seen that it was badly diseased, and a probe introduced into it went straight to the hip joint. It was then seen that amputation at the hip was necessary, and this was carried out by making an external incision and the bone disarticulated. The specimen I present tonight.

The interesting features of this case are the extensive disease of the bone, with a large number of fistulous tracts,

and the chronic condition of the disease. There was but very little shock following the operation, and the patient made an uneventful recovery. As the acetabulum was not affected by the disease, I believe the outcome is exceedingly bright.

Case 6..

Family History; Mrs. L. age 56, negative.

Personal History: Had a spell of fever about twenty years ago, which was diagnosed as malaria, but which persisted from seven to eight weeks, and was most likely typhoid. A few years after recovering from the fever, she began to have an indigestion with formation of considerable gas on stomach, and some pain to the right of the sternum. This persisted for several years, and she then began to have attacks of colic in the right hypochondrium. These attacks increased in severity, and in the course of time were associated with chills and followed by marked jaundice. The case came under the observation of Dr. Dabney, and he diagnosed it as one of stone obstructing the common duct. I saw the case with him in consultation, and agreed with his diagnosis, and we both advised operation. When the patient was brought to the infirmary, a urinary analysis showed many granular casts. The danger of the operation was explained to the patient, and she consented, as she felt that she could not endure many more attacks like those in the past. The day before the operation normal horse serum was injected to prevent hemorrhage. Thirteen stones were removed from the common duct, and twenty some odd from the gall bladder. The patient made a perfect recovery, and strange to say the urine cleared up. Several months after the operation however, she was taken with an attack of angina pectoris and died. This case well illustrates the fact that a history of typhoid fever, followed in the course of time by dyspeptic symptoms, strongly points toward either gall bladder infection or appendicitis. It also shows that before the textbook symptoms of gall bladder disease are manifest, that

others are present, which we do not usually recognize, namely, indigestion, flatulency and a localized tenderness. In fact, Deaver states in his last article on gall stone surgery that the symptoms of gall stone must be rewritten, that the early symptoms are "a fat patient, forty years old and belches gas." There is no question of a doubt that there are many cases of gall bladder trouble in this country that are today being treated for indigestion.

NOTES ON ANEMIA.

BY W. T. MARRS, M. D.

Anemia and anemic conditions are more often symptoms of other diseases rather than originating primarily in the blood itself. This being true the treatment should necessarily take into consideration the various pathological states, as albuminuria, syphilis, leucorrhoea, tuberculosis, hemorrhoids, gastritis and malaria. It is a concomitant of convalescence from many acute and wasting diseases.

The first aim should be to stop the drain upon the system, whether this drain be blood lost by hemorrhage of any character or by discharge of albuminous secretions of any kind. In acute anemia where the patient is sinking from the loss of large quantities of blood the operation of transfusion may give a new lease on life. Only healthy human blood can be thus employed, and many physicians prefer to risk a saline infusion to blood. If human blood is used it is preferable that it be defibrinated, as this will lessen the danger of embolism. If a direct transfusion is considered imperative one needle is inserted into the basilic vein of the patient and the other into the basilic vein of the donor.

The aspirator, needles and tubes should be filled with warm, normal saline solution before the introduction of the needles. This will diminish the risk of coagulation of the

blood about the joints of the instrument, which at the first stroke might be injected into the patient's circulation. In chronic cases in which the tissues are weakened and in a measure disintegrated care must be exercised in throwing blood or saline solution into the circulation lest ruptured blood vessels result. Too much blood thus thrown into the circulation may also produce an acute toxemia which may prove fatal.

The matter of nutrition is all-important in anemic conditions. A variegated diet is essential and especially a variety of vegetables and fruits. Digestion and assimilation must be well maintained and articles for which exists any idiosyncrasy are to be studiously avoided. Apples are especially serviceable because of the needed elements supplied by them as well as by the selective action of their malic acid upon the liver cells.

Small doses of calomel are occasionally indicated on account of the stimulating action of this drug upon all the glands and secretions. An occasional saline may be of value. If scybalous matter is thought to be lodged anywhere in the intestinal tract a few generous doses of castor oil may work wonders. The diet should, so far as possible, be arranged in a manner to combat constipation.

The hygiene is also of the utmost importance. Sunshine is life-giving to anemic patients and all the time possible in suitable weather should be spent out-doors. A salt bath and salt rub are of much value. When conditions are such as to preclude regular bathing the patient may take a dry rub using coarse towels which have previously been dipped in strong brine and dried.

The old treatment for anemia once thought to be well nigh specific was the introduction of iron into the system with a view to augmenting the hemoglobinic element and increasing the number of red corpuscles. A great many organic iron preparations are now offered to the profession, each no doubt possessing a modicum of therapeutic worth. The latest ideas concerning iron behavior in the system

is to the effect that its greatest absorption from the hemoglobin takes place in the extreme pyloric end of the stomach and the first few inches of the duodenum. The spleen is the main storehouse for iron and this supply is drawn on to considerable degree in case of ferric depletion.

In all cases of anemia in which iron is beneficial I have found *Bovinine* a preparation that gives good results, it being a valuable nutritive tonic rich in elementary iron. It seems to increase both the red cells and the hemoglobin and is well tolerated. I have especially found *Bovinine* highly useful in convalescence as well as in the depleted blood states which accompany wasting diseases. A long convalescence can be abbreviated by it, and anemia and emaciation prevented, as it contains the vital elements of nutrition and nerve-tone, as indicated by the full, normal physiological standard, namely proteins, oxy-hemoglobin, organic iron and albumins:

TREATMENT OF A CASE OF HYSTERIZABILITY—
EITHER INNATE FROM FAMILY PREDISPOSITION OR ACQUIRED IN CHILDHOOD ON ACCOUNT OF IMPROPER UPBRINGING AND LACK OF EDUCATION IN SELF-CONTROL AND AGAINST IMPULSIVITY AND INATTENTION.

BY TOM A. WILLIAMS, M.B., C.M., (EDIN).
OF WASHINGTON, D. C.

True hypochondriasis is probably not psychogenetic at all. Its pathogenesis is perhaps to be found in perturbations of the cenesthesia, a vitiation of the organic sensations which we infer rather than demonstrate and which are perhaps of the same nature as the protopathic sensations which Head had discovered in sensory nerves in general. This hypochondriasis is not amenable to our present therapeutic resources.

The psychic hypochondriasis is on the contrary curable in the manner shown by the case subjoined.

ASTHENIA AND HYSTERICAL HYPOCHONDRIASIS.

A Swiss motor-man, aged forty-five, was seen with Dr. Randolph at the Garfield Hospital and later referred to the George Washington Hospital. He believed himself very dyspeptic and was always complaining garrulously of fugitive pains. He had been easily persuaded that his troubles were all notions; but these quickly returned in spite of Dr. Randolph's attempts. He had fully made up his mind to give up work and return to Switzerland.

Examination showed a normal nervous system, with the exception of somewhat overactive reflexes. But the heart was easily excited. The blood pressure was 115 and he was 20 lbs. below weight.

Diagnosis. The details would demand much space to set down; but although the question of undue vasor lability presented itself, the vivacity and changeableness of his complaints made it certain that a large part of his trouble at least was psychogenetic; and I resolved to see how much by the therapeutic test.

Treatment. After putting him in a passive or hypnoidal state psychotherapeutic impositions were given. These included the taking of a proper full diet instead of the bread and milk one which was all he thought himself capable of digesting. He was also commanded to exercise by gradually increasing walks and gymnastic movements. After a few days of this, he was persuaded to leave the hospital, and to do housework for further exercise while his wife was working out. He was also given adrenal substance Grs. 2 per day.

A few days later, he felt better, and volunteered the statement, "I am coming to myself." He was sleeping better, but still as usual dreamed of the home he had left thirty years ago, and "he saw his folks every night." He was given further exercise, and recommended to strengthen

himself for return to work by eating, exercising and enjoying. He was told that he would be stronger than ever, that he had become sick by taking improper care and ceasing exercise and by unnecessary worrying.

After two weeks of persuasion following two days of hypnoidal suggestion he returned to work and in a month he had gained 8 lbs. and was looking fresh and well, although the pain and indigestion still occurred now and then. The pulse was soft and slow.

Two weeks later he was having flushes and the heart was irritable. I found the systolic blood pressure 130 and the diastolic 77; so I thought it time to reduce the proteins, which I had been giving him in large amounts, and to cease the adrenal. Soon after this he left the position as motor man and took a place as footman where he continues six months later well on the whole.

His good condition and relative satisfaction prove how large a part of his syndrome was psychogenic, for until proper psychotherapeutics was employed he was in a state of nosophobia which would soon have become chronic. That this was not due to vascular instability was proved by the fact that he recuperated so quickly with proper food and exercise, and that the nosophobia almost ceased while the vasor lability persisted. This case might legitimately be included in the first type I have discussed,* but for the absence of demonstration that the hysterical ideas actually arose from the vasomotor irregularities. The very marked suggestibility classes him where I have placed him.

*Washington Medical Annals, Jan., 1912.

AMERICAN PROCTOLOGIC SOCIETY.

FOURTEENTH ANNUAL MEETING, HELD AT ATLANTIC CITY, N. J.
JUNE 3 AND 4, 1912.

The President, Dr. John L. Jelks, of Memphis, Tenn., in the chair.

Officers elected for the ensuing year: President, Louis J. Hirschman, M.D., Detroit, Michigan; Vice-President, Alois

B. Graham, M.D., Indianapolis, Ind.; Secretary-Treasurer, Lewis H. Adler, Jr., M. D., Philadelphia, Pa.

Executive Council: John L. Jelks, M. D. Memphis, Tenn.; Louis J. Hirschman, M.D., Detroit, Michigan; J. Rawson Pennington, M.D., Chicago, Ill.; Lewis H. Adler, M.D., Philadelphia, Pa.

The place of meeting for 1913 will be at Minneapolis, Minn. Exact date and headquarters to be announced later.

The following were elected Associate Fellows of the Society: Dr. Rollin H. Barnes, Metropolitan Building, St. Louis, Mo.; Dr. Barney J. Dryfuss, 7 W. 91st. St., New York City, N. Y.; Dr. James A. Duncan, 1107 Broadway, Toledo, Ohio.

The following is an abstract of the principle papers read:

PRESIDENT'S ADDRESS.

RELATIONSHIP AND DUTIES OF "THE PROCTOLOGIST" TO THE PROFESSION.

By John L. Jelks, M. D., of Memphis, Tenn.

He stated that this society was an innovation when organized,—a strange vessel on the high seas. A child of American Medicine, it has now become a sprightly youth, with ambition and strength of purpose, having and exercising authority.

The Medical world recognizes as authoritative, the expressions of its Fellows in the field covered.

He admonished discretion, thorough description and perfection of technic. Hasty speech or carelessly written papers cannot be erased or changed—as in their publication they become a permanent record.

He referred to the theories of our science, which were born of dreamers and nurtured by enthusiasts, and fancies no solid superstructure could be reared on foundations so infirm, and added that neither these, nor the honor, distinction, nor the gain they held out, should be sufficient to determine the surgeon to make merchandise of theories.

He called attention to the obstacles this Society had encountered, because of these fragile theories, which had previous to its existence, been set up as targets for those who were unfavorable to the development and progress of this specialty.

He considered the true surgeon and specialist as humanitarian, whose purpose in life is to save life, restore health and happiness, and admonished him to shield and protect his brother from the darts aimed to destroy.

He also referred to cancer in the rectum, sigmoid or colon, which may have been treated as of minor significance until metastases are so extensive as to preclude hope of a cure. He praised those Proctologists, who have with much patience, and fortitude labored for and finally have overthrown that unfortunate assignment of malignant rectal and colonic cases to untimely graves.

He stated that much harm has been done by the profession in the establishment of drug habits among the American people for the relief of constipation as last years' symposium before this Society would show, and says the Proctologist is best equipped to study these cases, and arrive at the true etiology pointing to means of relief.

The American people are living in tin cans and cracker boxes, sparing time only to catch the next train, or meet the next market report; are storming their nervous systems with destructive toxins, filling sanatoria and health resorts with wrecks and lowering the scale of human usefulness and intelligence. None can more early observe the impending catastrophe, or turn on the search light than the Procto-Enterologist and scientist, who calls together the aids of chemistry, physiology, pathology and bacteriology and a fair degree of understanding as to the results of the methods and habits of life of the average American Citizen, who is less careful in the selection of and preparation of his own food than that of his stock.

He complimented the Fellowship of the Society, which

is limited to fifty and has forty-three members, and stated no similar number of men are banded together in the civilized world who can boast of greater attainments for the science of medicine, or for humanity, almost every member being the author, or an associate author of a book, and these are all standard text or reference books in this branch; most of them also have been inventors of valuable instruments, or appliances applicable to this specialty.

He referred to some of the research work done by the Fellows, and to the possibilities yet before them in Procto-Enterology.

He alluded to the intra—and extra-rectal and anal and colonic infections, the roll they play and the possible developments of vaccine therapy and antitoxins in combating them. He stated that each Fellow should carefully weigh his selected subject for these meetings, being mindful of the fact that the general profession is looking to this Society and its individual Fellows for facts, not fancies, for proven remedies and technics, and not fads.

The Society has attained an individuality, both national and international, and he reminded his Fellows that there is labor yet to perform. That they must retain their progressive spirit and enthusiasm, lest they lapse into a state of self satisfaction when retrogression will mean their ending.

He referred to the fact that few of the hospitals of this country permit additions to their staff of specialists in Proctologic work, hence the general surgeon and the general practitioner are doing the work in these institutions, about as these same men would do the Ophthalmologic work, etc.

He recommended the addition to the American Medical Association of a section, in which the subjects, Gastro-Enterology and Proctology, or Procto-Enterology may be discussed.

He advised closer confinement of the Proctologists to

their work, to the exclusion of general work, and believed this will receive from the profession greater respect for this specialty, and that fewer of this class of cases will be referred to the general surgeon, or be accepted by him for treatment.

Conservative Life Insurance Companies are now convinced of the necessity of paying attention to the rectum and colon and such instances as the writer's confidential reports to alert examiners of cases of Amebic infection, Adenomata, Papillomata, Syphilitic and tuberculous diseases, which the examiner would have overlooked, and impressed him with this fact, and he wondered if these and similar instances had not brought to the minds of medical referees the possible advisability of subjecting all applicants for large policies to a plurality of examiners. He advised the change of name of this Society to that of The American Procto-Enterologic Society, and stated not one of the Fellows of the Society had found he could eliminate from his work intra-abdominal intestinal work.

A REVIEW OF PROCTOLOGIC LITERATURE FOR 1911.

By Samuel T. Earle, M. D., of Baltimore, Md., Chairman of Committee on same.

Dr. Joseph F. Saphir of New York City, *The New York Medical Journal*, 1911, Vol. 93, page 216, gives a description of "A Syringe for Local Anæsthesia in Rectal Operations."

Von Dr. Erich Schlesinger, Berlin, *Duetsche Medizinische Wochenschrift*, February 9, 1911, reports "An Air Pessary for keeping in Place Internal Hemorrhoids and Prolapse of the Rectum."

Dr. L. L. McArthur, Chicago, Ill., *Journal of American Journal of Obstetrics*, 1910, Vol. 61, page 259, has devised an instrument known as the "Anastomat" to facilitate the end-to-end anastomosis in extirpation of the rectum and sigmoid.

Dr. Dudley Roberts, Brooklyn, N. Y., *The Proctologist* 1910, Vol. 4, gives a description of "A New Anal Speculum."

Dr. James F. Churchill, Chicago, Ill., *Surgery Gynecology and Obstetrics*, Vol. 11, 1911, page 205, gives an interesting paper on "Rectal Anæsthesia."

Leslie W. Dryland, M. R. C. S. England, L. R. C. P. London, D. P. H. *London Lancet*, 1910, Vol. 2, page 801, "An Operation for Prolapse of the Rectum."

Sidney Boyd replies to the above paper of Leslie Dryland's *London Lancet*, 1910, Vol. 2, page 1242.

Dr. L. L. McArthur, Chicago, Ill., *Journal of American Medical Association*, 1911, Vol. 57, page 363. "Rectal Prolapse."

Dr Kenneth A. J. MacKenzie, Portland, Oregon. *Transactions of the American Surgical Association* 1911; *Surgery, Gynecology and Obstetrics* 1911, Vol. 13, page 218. "Treatment of Fistula in Ano without Mutilation of the Sphincters."

A. Campbell Magarey, M. B. Adelaide, M. R. C. S. England. *British Medical Journal*, 1911, Vol. 2, page 71. "Hypertrophied Papillae of Morgagni."

POST-OPERATIVE CARE OF RECTAL CASES.

By Wm. M. Beach, M. D., of Pittsburg, Pa.

Success in the solution of Proctologic problems is measured by the degree of perfection in the restoration of functional conditions involved; we must remove the disease, but it is quite as important that we have a care to vouchsafe to our patients, perfect function.

Post-Operative developements that need our attention are:

1. The condition of the nervous system.
2. The disturbance of the vascular system.
3. Digestive derangement.
4. Local conditions.

Post-Operative neuroses manifest by (a) shock, (b) nervousness, (c) Pain, (d) sphincter algia, (e) retention of urine.

Vascular aberrations are shown by (a) hemorrhage, (b) infection.

Gastro-Intestinal derangements are (a) nausea, (b) constipation, (c) ampullar impaction.

The local care of wounds should be inspected daily by the operator.

If patients are given proper post-operative care, their dread of radical cures would quickly subside, and Rectal surgeons would escape untoward sequelae they may be compelled to record.

PATULOUS ANUS: ITS CLINICAL SIGNIFICANCE.

By Alfred J. Zobel, M. D., of San Francisco, Cal.

The condition of patulous anus results from an abnormal loss of tone in the sphincter muscles, which may be due to either a fault intrinsically within the muscle, or to some disturbance in its nerve supply. When purely muscular the cause may be a direct injury to the muscle; an infiltration by a malignant or a syphilitic growth; a participation in a general muscular weakness; or the presence of a foreign body in the rectum which prevents the muscle from completely contracting. When the nerve supply to the sphincters is at fault the causative lesion may be either central or peripheral.

Complete fecal incontinence does not necessarily follow when the anus becomes patulous. The external sphincter, when but slightly affected, sometimes is assisted in performing its function by an extra effort of the will and through augmenting the muscle's action by strongly contracting the Glutei muscles and bringing them together.

A brief report of a few very interesting cases of patulous anus is given to illustrate the different causes of this condition; among them being a case of infiltration of the sphincters by a carcinomatous growth low down in the rectum; a case, the result of pederastic practices; a case, the result of a participation in the general alcoholic neuritis; cases where it occurred in low intussusception of the

bowel in children; and two cases where it appeared as one of the early signs of Locomotor Ataxia.

THE SURGERY OF COLONIC CONSTIPATION.

*A Report of Thirteen Cases, By Louis J. Hirschman, M. D.,
of Detroit, Michigan.*

After presenting the histories, radiographs and reports of operative treatment of thirteen cases of obstipation due to colonic obstruction, dilatation, stricture and adhesions, Dr. Hirschman has formulated several principles in dealing with his cases requiring colonic surgery. They are epitomized in the following conclusions:

1. Most cases of chronic constipation are colonic in origin and many are obstructive in type.
2. Many cases of so-called chronic constipation are therefore really colonic obstipation.
3. Many cases of colonic obstipation suffer from chronic dilatation of the colon with or without ptosis.
4. Radiography is a most vital necessity in the diagnosis of all cases of chronic interference with bowel function. Its negative value may be greater than its positive.
5. A chronically, over-distended colon whether adherent or not, never again becomes a normally functioning bowel.
6. Intestinal adhesions usually tend to recur in increased intensity and adhesions only cause symptoms when put under stress or tension.
7. The prevention of tension in physiologic rest to the affected organ and colonic rest is obtained only by colectomy, colostomy, or exclusion.
8. Colectomy as advocated by Lane is an operation seldom advisable and has many obvious objections from the standpoint of patient and physician. It is too grave a procedure to be undertaken except in the most aggravated cases.
9. Strictures, neoplasms, and other obstructions should be removed by excision of the diseased tissue and lateral anastomosis of the bowel.

10. Exclusion by ileo-colostomy is safe, easy to perform, and most satisfactory in the restoration of normal peristalsis and consequently normal health.

11. Results speak more eloquently than words. After an experience with nearly fifty cases requiring exclusion or resection of the colon for obstructive constipation with but one failure, I feel fully justified in recommending it to your careful consideration in all cases of aggravated colonic obstipation whether congenital, post-operative, or dependent on some mechanical obstruction or narrowing of the bowel.

THE ROENTGENOLOGIC METHOD OF EXAMINING CASES OF CONSTIPATION AND OBSTIPATION—A METHOD OF VISUALIZATION OF ABDOMINAL LESIONS OF THE INTESTINAL TRACT.

By Arthur F. Holding, M. D., of New York City, N. Y.

The author noted that current text-books on diagnosis written by eminent authorities are still copying cuts which were drawn by some artist rather than by an anatomist. Let us hope that the striking proof furnished (by the X-rays) of the fallacy of such teaching will be effective, and perhaps not one of the least results will be to cause true illustrations to be placed before our students' eyes.

The normal position of the colon and the parts of the intestine that can ordinarily be visualized by means of bismuth ingesta and the X-rays, are:

(1) The first portion of the duodenum; (2) the jejunum; (3) the ileum; (4) all parts of the colon; in some cases the second and third portions of the duodenum and the appendix, can be visualized.

The accuracy, reliability and interpretation of findings by this method, however, may well receive our careful attention.

In the first place, this method does not cause gastro-intestinal symptoms, such as nausea, vomiting, diarrhea, constipation, gastro-intestinal or general symptoms, other than

are present when buttermilk alone is ingested; it is therefore logical to assume that the buttermilk-bismuth mixture does not irritate the mucous membrane and gives a true picture of the motor activities of the patient's intestines.

By fluoroscopy and by radiography in the erect or prone positions, or both, an accurate outline of the lumen of the tract can be obtained, especially where there is any obstruction to the onward progress of the intestinal contents. The individual peristaltic waves can be accurately registered on a special photographic emulsion that is far more sensitive than the human retina and the progress of the peristaltic waves can thus be seen functioning under normal conditions, the patient and his abdominal contents not relaxed by a general anæsthetic; the secretions and motility not disturbed by the presence of an irritating foreign body such as a stomach tube; the conclusion not based on inference deduced from chemical reactions of juices obtained by abnormal and irritating measures. The organic outline obtained in X-Ray plates is even more conclusive and reliable than the information obtained by the sense of touch whether that be applied over the intact abdominal wall or to the viscera laid bare by an exploratory incision. The radiographic emulsion and the retina are the two most sensitive methods of observation possessed by man, far outranking in their acuteness either the drum membrane or the sense of touch. It has been contended that the abdominal operation was more acute than an X-Ray examination, because it laid bare the "naked truth," the finality of this argument is based more on the sound of the words than in facts, as anyone knows who has had an opportunity to use both methods on the same case.

On the other hand, there is great danger of arriving at wrong conclusions in using the X-Ray method, especially when the examination is based on too few plates or is only an examination of a suspected part of the 30 odd feet of intestinal canal.

We must not let seniority interfere with our recognition of the superiority of methods employed by us for diagnosis. No progressive proctologist or surgeon should depend on any one method but should use them all in examining cases, and in obscure cases he should not hesitate to insist upon supplementing the more common methods of examination with a radiologic examination, regardless of the expense involved.

The various lesions and conditions that have been successfully shown by the X-Ray method are—atonic and spastic constipation; congenital anomalies of the tract such as non-rotation of the cecum and narrowing or insufficiency of the ileo-cecal valve; adhesions; kinks, with or without adhesions, (including Lane's); ulcers; tumors within the canal and tumors pressing upon the intestines from without.

It must be borne in mind that a palpable tumor disappearing after the administration of an enema or a cathartic, even if it followed by improvement in the patient's condition, is not proof that the tumor was feces.

The Roentgenologic method of clarifying difficult conditions present in patients will no doubt be gladly welcomed and widely utilized by surgeons, who, as a class, deserve our greatest respect and admiration for their courage in attacking many ordinarily undiagnosible conditions by cutting boldly into the abdomen and making their diagnosis by inspection and thereupon instituting impromptu surgical procedures in order to correct the conditions found. Many times the condition found within the abdomen is entirely different from that which was expected. When these difficult situations can be accurately known before the operation is begun; when the surgical procedures can be accurately predetermined; when much time (previously lost exploring the abdomen) can be saved; when the duration of the patient's anesthesia can be proportionately shortened; when the surgeon will be saved the tremendous nervous strain and responsibility of emergency decisions and

procedures; the surgeon must recognize that his operative statistics will necessarily be better, his patients are going to recover quicker, and more of them, and finally the years of a surgeon's own life and usefulness will be increased.

The only great draw back to the general adoption of this method is its necessarily great expense.

To be Concluded in September Issue.

Editorial.

MEASURES TO PREVENT THE INTRODUCTION OF PLAGUE INTO THE UNITED STATES.

Up to July 15th two cases of plague had been reported in Habana, and 37 cases with 23 deaths in Porto Rico, and The Public Health and the Marine Hospital Service has been taking prompt and active means for its control.

Immediately upon the first intimation of the occurrence of plague in Habana, the Public Health and Marine Hospital Service dispatched Passed Assistant Surgeon R. H. von Ezdorf to Habana to supervise the outgoing quarantine of vessels bound for the United States ports. All orders for the fumigation of vessels and for the certification of passengers and freight destined for the United States were issued to the service representatives at Habana.

Because of the occurrence of plague in Porto Rico and Habana appropriate instructions were issued to the quarantine officers at the various United States ports. Telegrams were also sent to service officers stationed in all of the ports on the Atlantic and Gulf seaboards instructing them to confer with the city health officers and recommend the immediate inauguration of work for the destruction and examination of rats on water fronts. This work has already been begun by the cities of Galveston and Norfolk.

Upon the request of Dr. J. Y. Porter, State Health officer of Florida, the representatives of the service at Habana, Cuba, was cabled that all passengers destined for Florida must be detained for seven days in Tricornia quarantine station at Habana until the foci of infection in Habana are definitely located.

The restriction now being imposed at Habana upon vessels and passengers destined for United States ports may be summarized

as follows: 1. Ships are not allowed to go to the docks after fumigation for the destruction of rats, and this latter expedient is being enforced on all vessels destined for United States ports. 2. Members of the crew are not allowed to go ashore at Habana nor is the shipping of new members in Habana allowed. 3. All freight is carefully inspected to determine whether it is harboring rats, and only such freight is allowed to be shipped as is known to be free from rats. 4. All passengers for Florida ports are being detained for seven days at Triscornia (Habana quarantine station).

The following restrictions are being placed at domestic ports upon vessels arriving from Habana: 1. The vessels are subjected to careful inspection, the temperatures of the passengers are taken, and if the vessel has been fumigated at the port of departure and this fact duly certified, and if it is also certified that no passengers are on board from an infected district and there is no other quarantine reason for detention, said vessels are passed. On the other hand, signs of rats being on board, or the presence of suspicious illness or fever in passengers or members of crew concerning which the quarantine officer is in doubt, or the presence on board of persons from infected districts who have not passed the period of incubation of plague are any one or all causes for the quarantining of the vessel and the enforcement of sufficient measures to insure full compliance with the quarantine regulations.

The health officer of the port of New York has sent the following communication to the New York Commissioner of Health: "The rapid approach of the bubonic frontier makes extraordinary precautions at all ports in communication with West Indies highly desirable. I would recommend, therefore, that the department of health begin a systematic collection of rats from the wharves of the city and particularly from the wharves at which vessels from South American and West Indian ports dock, and the subjection of all rats caught to bacteriological examination."

Under date of July 24th the Associated Press issued the following:

"A conference of health officials of Florida, Alabama, Georgia, Mississippi, Louisiana and Texas, to consider plans for preventing the introduction into gulf ports of bubonic plague, will be held in New Orleans next Monday, July 29. The conference will consider also the question of quarantine regulations in the event the plague infection should be discovered in a Southern port."

Notwithstanding the presence of the plague in Cuban and Porto Rican ports, examinations of thousands of rats at the principal gulf ports has failed to reveal the slightest trace of the dangerous

diseases. The latest advices by Associated Press, of July 27th, contains the following:

New Orleans, July 27.—Discovery of the bubonic bacilli was made in New Orleans this afternoon by federal and city health authorities. The bacteria of the dreaded plague was found in a rat caught on the water front. The discovery was made after the examination of several hundred rats during the past two weeks had failed to reveal any trace of the disease.

"So far none has been found elsewhere.

"Every possible precaution is being taken and there is no cause for any apprehension.

"Rat plague has been in England for more than two years, but because it has been vigorously fought no human cases have occurred and the city health officer of New Orleans has already taken measures to combat this small beginning so vigorously that there can be no possible thing left undone to wipe it out entirely, and ultimately eliminate all rats from New Orleans."

CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA.

The third Clinical Congress of Surgeons of North America will be held in New York City, the week of November 11 to 16. The Congress was organized in Chicago three years ago as a result of an informal invitation issued by *Surgery, Gynecology and Obstetrics* to its subscribers to attend for a fort-night the surgical clinics of the surgeons of Chicago. The attendance of the meeting was so large (more than fifteen hundred) and the success of the clinical phase so great that a permanent organization was effected. The second meeting at Philadelphia last year, with its large attendance, thoroughly established the popularity of such meetings and a general demand that New York City should be the next meeting place was unanimously voiced by those present. The New York surgeons have entered into the preparations for this third meeting with enthusiasm. Those in attendance will have an opportunity to witness all the important surgical clinics held in New York City during the week of the meeting. There will be a complete program of clinics extending throughout the entire day, for those interested in the various branches of surgery—gynecology, obstetrics, eye, ear, nose and throat surgery, orthopedic and genito-urinary surgery, surgical pathology and experimental surgery, including, of course, all phases of general surgery. In the large ball-room of the Waldorf-Astoria, the place of registration and headquarters of the Congress, the daily program will be bulletined one day in advance and printed programs of each day's clinics distrib-

uted to those in attendance. For the evenings, several important literary scientific programs have been prepared, which will give those in attendance an opportunity to hear the leading surgeons of this country and Europe discuss the live surgical topics of the day.

Among the speakers will be Drs. A. J. Ochsner, of Chicago; Edward Martin, of Philadelphia; Wm. J. Mayo, of Rochester; Chas. H. Peck, of New York; Geo. W. Crile, of Cleveland; Howard A. Kelley, of Baltimore; Otfried Foerster, of Breslau, Germany; Chas. H. Frazier, of Philadelphia; Chas. A. Elsberg, of New York; Thos. S. Cullen, of Baltimore; Ernest Wertheim, of Vienna, Austria; X. O. Werder, of Pittsburg; Robert L. Dickinson, of Brooklyn; W. Arbuthnot Lane, London, England; John G. Clark, of Philadelphia; Robert C. Coffey, Portland, Ore.; R. R. Smith, of Grand Rapids; Chevalier Jackson, of Pittsburg; Myles Standish, of Boston; Ewing W. Day, of Pittsburg; E. O. Abbott, of Portland, Me.; John Ridlon, of Chicago; Royal Whitman, of New York; and John B. Murphy, of Chicago.

The officers of the Congress are Albert J. Ochsner, M.D., president; John G. Clark, M.D., vice-president; Edward Martin, M.D., president-elect; George E. Brewer, M.D., vice-president-elect; Franklin H. Martin, M.D., general secretary; Allen B. Kanavel, M.D., treasurer; A. D. Ballou, general manager.

A MOST WORTHY ENTERPRISE.

The Seaman A. Knapp Memorial Committee has decided by a unanimous vote to raise \$150,000.00 for a properly equipped farm and a memorial building to be associated with the Seaman A. Knapp School of Country Life, connected with Peabody College. The General Education Board recently gave the Seaman A. Knapp School of Country Life \$250,000, the interest on which is to be used for running expenses. The committee is attempting to provide a building in which the instruction may be given and a farm upon which it may be made more practical.

The great task of improving conditions of living on the farm, of making life in the country more productive and more humanly interesting, which Dr. Knapp inaugurated, and which his representatives are carrying forward today, presents one of the most vital and pressing problems in Southern life and citizenship. This school is needed to aid the one thousand farm demonstration agents now working in the South, as well as to supply the demand for an increase of such workers who are expected to carry on services already begun. It is needed to assist the rural school and the rural teacher. It is to be a rallying point for demonstration agents, county superin-

tendents of education and other workers. It is to be a clearing house for rural school ideas and plans. It is to furnish a model country school, home farm, model barns, fences, gates, implements and general equipment at reasonable cost. The farm will be located several miles from Nashville.

There has not been a name to which the farmers, their sons and their daughters in the South are so much indebted as that of Dr. Knapp. His practical wisdom, his sane council, and his untiring energy have reached hundreds of thousands of families. He has made agricultural pursuits more worth while, and he has inaugurated a work which ~~must not~~ be allowed to decline. Every family in the South has profited by his advice; every teacher and every school child have been benefited by his teachings; every commercial establishment and every industrial institution have increased their earnings because of the increased productivity and efficiency which the great movement which he introduced brought about.

HAY FEVER HINTS:—We are now well in the season when the services of the physician are urgently demanded by the victim of vasomotor rhinitis—a season dreaded not alone by the patient, but, not uncommonly, by his medical adviser as well. Particularly is this true of the latter if he has not kept abreast of the most modern ideas on the therapy of hay fever. In any event the disease is one that tries the patience and calls for the application of remedial agents that have been proved beyond peradventure.

In the treatment of hay fever the physician rarely has an opportunity for the application of preventive measures. His help is usually sought only after the attack has manifested itself—when the patient is suffering (acutely, in most cases) from the ravages of the disease. Effective treatment is then demanded—and promptly, too. Administration of the suprarenal substance in the form of its isolated active principle, Adrenalin, is undoubtedly the wise procedure at this juncture. One feels safe in saying this in view of the long and effective service which has been rendered by this agent in critical emergencies.

There are a number of forms in which Adrenalin is successfully used in the treatment of hay fever. Adrenalin Chloride Solution and Adrenalin Inhalant come naturally to mind in this connection. The substance is also incorporated in the several Anesthone preparations—in Anesthone Cream, Anesthone Inhalant, and Anesthone Tape, all worthy of confidence, and especially worthy of trial in cases in which for any reason the older Adrenalin products seem not to be

indicated. The Adrenalin and Anesthone products, as is well known perhaps to most physicians, are manufactured by Parke, Davis & Co. An exposition of their uses in the malady in question, together with the technique of administration, is now appearing in the commercial pages of the leading medical publications. Practitioners are advised to consult these current announcements.

SYRGOL:—From the University Eye-Clinic at Jena, Prof. D. W. Stock (Director), come very excellent reports from Dr. G. A. Hegner, Senior Clinical assistant, upon the result obtained from the use of Syrgol in conjunctival inflammation, especially gonorrheal conjunctivitis.

The favorable reports of Kollbrunner regarding the use of Syrgol in specific urethritis induced the ophthalmologists at Jena to make experiments with the new preparation. Hegner states that their results have been so gratifying that Syrgol is looked upon by them as a most valuable addition to the various means of treating suppurative diseases of the conjunctiva. He says that, where there is thickening of the eyelid with extreme oedematous swelling and the tissues became hard so as to render it difficult to inspect the diseased structures in order to confirm the diagnosis, treatment should be given with the purpose of allaying the inflammation and reducing the swelling lid. "Protargol, Sophol and Argyrol have in the past proved beneficial, but since our experience with this new salt, Syrgol, we regard it is superior in its ultimate results."—Hegner.

Syrgol is a brownish-black, odorless colloidal oxide of silver. Physically it consist of shining crystalline scales which dissolve in two parts of water. A five per cent. solution is almost painless and does no damage to the cornea.

In twenty cases of gonorrheal conjunctivitis, he reports that gonococci disappeared from the secretions in a short time and speedy recovery took place in every instance. Three exceptionally severe cases are reported in detail, speedy recovery resulting in each instance. In the three cases described the most noteworthy feature was the rapid disappearance of the gonococci and the prompt subsidence of the inflammation.

Good results were also observed in many cases of ophthalmia neonatorum. By using Syrgol healing took place usually in about a week. In two cases recovery took place in four days, and seldom was it necessary to continue treatment longer than two weeks. An interesting fact that he mentions was that two cases which were not doing well previously showed rapid improvement when transferred to the clinic where Syrgol was employed.

Syrgol proved of much service also in cases of conjunctivitis following operation for cataract. Favorable results were obtained also in cases of inflammation of the lachrymal ducts. He mentions a patient suffering from an acute dacryocystitis in which there was swelling and considerable redness, together with a feeling of pressure over the duct. The sac was washed out thoroughly with one per cent solution of Syrgol and complete recovery followed in eight days. A similar result was obtained in a case where there was a purulent discharge from the lachrymal sac, but no inflammation present. Two such cases, of course, are not sufficient to enable one to draw positive conclusions, but they certainly indicate that good results in both acute and chronic inflammation of the lachrymal sac may be obtained by irrigation with Syrgol.

The manner of applying the remedy is quite simple. In acute cases of blenorrhoea a five per cent. solution is dropped into the conjunctival sac from two to three times a day, and the eye is bathed frequently with a solution of boracic acid in order to wash away accumulated secretions. In some cases it may be found advisable to use a two per cent. solution.

The treatment of gonorrheal conjunctivitis is made easy because of the absence of irritation following the use of Syrgol. Instillation of this remedy in the eye and using an antiseptic solution as a wash is quite often sufficient to effect a cure.

SELECTION OF A TONIC:—The greater care and thought being devoted to the use of remedies in disease is heartily to be recommended and there can be no question but that the vastly superior therapeutic results that medical men are uniformly obtaining to-day are the direct outcome of the broader grasp of drug action. Take for instance, the successful application of tonic medication. No physician at the present day would think of administering any potent restorative or reconstructive remedy without paying due consideration to the following essential details:

First. The avoidance of any remedy which from its nature or ingredients would tend to unduly stimulate or excite the higher nerve centers.

Second. The avoidance—except when specifically indicated—of any remedies which suddenly and markedly raise the blood pressure.

Third. The avoidance of reconstructive measures except in rare instances, which do not have a well defined permanence of action, or which must be constantly increased in quantity, or continued indefinitely, in order to secure their beneficial effects.

Fourth. The avoidance of remedies containing drugs which are apt to produce dangerous or toxic effects as a result of some possible

idiosyncrasy on the part of the patient.

Careful investigation on the part of the careful practitioner will enable him to see that of all the tonic remedies at his command, Gray's Glycerine Tonic Comp. is one of the few that can be freely employed with certainty that all of the foregoing requirements have been met.

As a matter of fact, clinical experience has clearly demonstrated that one of the strongest features of Gray's Glycerine Tonic Comp. is its practical freedom from any contraindication of age, sex, season or personal idiosyncrasy. It is a thoroughly reliable tonic that accomplishes its effects solely through stimulating the physiologic functions of the body. As a consequence its whole action is to restore a nearer normal balance between physical waste and repair; in other words, the proper nutrition of the whole body. Under its use every function is promoted and helped to do its normal amount of work, with all that this means in the maintenance of physical health and vigor.

POULTICES SHOULD BE STERILE:—Prof. George Howard Hoxie of the University of Kansas in his most excellent book on "Symptomatic and regional Therapeutics," states under the heading of localized inflammation that "the danger of infection should ever be in mind in applying a poultice, for the maceration incident to the poultice favors infection, even if in ordinary circumstances one might consider the area germ proof."

Again he refers under the chapter on Pain, to the danger from using dirty poultices and that skin affections have been added to the ordinary disorder when bread-and-milk or linseed poultices have been used to relieve pain.

It is thus noted how important then, it is, in the employment of a poultice for the relief of pain and inflammation, that a sterile and trustworthy product be applied. Inasmuch as poultices are a means of producing Hyperemia by the use of heat and insofar as they do this better than any other means, it is interesting to observe that in the belief of Prof. Hoxie that "the clay poultices, known best in the form of Antiphlogistine, are the best to employ, and they are sterile and clean."

Antiphlogistine affords not only a safe but clean method of utilizing the advantages of hot moist heat in the treatment of pain or inflammatory conditions. It maintains heat in contact with the part for hours and its adaptability is only secondary to its therapeutic value.

CODEINE SAFETY AGAIN DEMONSTRATED:—Dr. E. L. McKee, of Cincinnati, Ohio, speaking of Codeine in the *Denver Medical Times*, says:—"It has been used for long periods without the formation of the drug habit, inasmuch as when glycosuria was brought to a termination by dietary and other measures, the cessation of the use of Codeine was not followed by any distress. The effects of codeine on the alimentary canal are remarkable, in that it assuages pain as well or better than morphine, and nevertheless does not check the secretions or peristalsis notably, unless the latter is excessive, as in dysentery. The statement that codeine is simply a 'little morphine,' only differing from the latter in the size of the dose, is an erroneous view, as can be ascertained by any one who closely observes the action of the two drugs."

Codeine in connection with Antikamnia has stood the test of exhaustive experimental work, both in the laboratory and in actual practice, and they are now accepted as the safest and surest of this class of remedies. Therefore, "antikamnia and codeine tablets" afford a very desirable mode of administering these two valuable drugs in the various neuroses, as well as the coughs, bronchial affections and summer colds.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

THE CHLOROSIS OF YOUNG GIRLS:—To permit the blood stream of chlorotic girls to remain in an impoverished state, is to expose them to more than one peril. Such patients are usually high-school or seminary girls, struggling with duties that tax their every ounce of force. When the break comes, as it almost invariably will, the physician has on his hands a girl whose recovery takes much time and care. In most instances this could be avoided were girls put on

Cordial of the Extract of Cod Liver Oil Compound (Hagee).

As a blood maker and general tissue builder, it is of much value in chlorosis. Not only are the blood corpuscular elements increased in number, but also a noticeable improvement takes place in their quality. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) will prove its merit in these cases and its systematic administration over a considerable period of time will save chlorotic girls much of the distress to which they otherwise would be subjected.

MALTOSE IN MELLIN'S FOOD:—As it is generally accepted that milk should not be given during the acute stages of diarrhea, it is necessary to select some diet other than milk that will furnish enough easily assimilated nourishment to carry the baby through the critical period. The form of this nutrition should be such as to prevent the destruction of the body proteins; otherwise, the baby patient is likely to undergo starvation to such an extent that the chances of recovery are much lessened. A diet of Mellin's Food and water meets these requirements in an effective and satisfactory manner.

Maltose, the predominating carbohydrate in Mellin's Food, is a protein-sparer, and this, together with the amount of soluble proteins and the total food value in the mixture of Mellin's Food and water, is a safeguard against prostration—so much to be feared in cases of infantile diarrhea.

Mellin's Food is much to be preferred to barley or other cereal gruels, as it is not only free from starch, but contains ample nourishment and of the right kind, available for immediate assimilation.

STERILIZATION OF CRIMINALS IN NEW YORK:—The New York Legislature passed a bill which has recently been signed by Governor Dix, of the State, providing for the sterilization of a certain class of criminals and other defectives confined in State institutions, if after examination, it is decided by the Board that the operation would improve the inmate's mental condition or would be necessary to prevent the transmission of crime to his offspring. The Board is to be composed of a surgeon, neurologist and general practitioner, each of not less than ten years' experience. The decisions of the Board are to be subject to judicial review, and will not be effective until after they have been on file for a period of ten days. Five other States have adopted a similar law.

A MOST RELIABLE PRESCRIPTION IN HAY FEVER:—Will be found in Tilden's preparation Respirazone. This preparation represents a skillful, scientific blending in an acceptable vehicle the following very useful drug agencies: Iodide and Bromide of Potassium, Lobelia Inflata, Ipecacuanha and Leonurus Cardiaca.

THERE'S A SURPRISE IN STORE FOR YOU:—And a most agreeable one too, if you have been using chloral and the bromides wherever you wanted to quiet a restless patient or overcome insomnia. The surprise will come when you begin using *Pasadyne* (Daniel's Concentrated tincture of Passiflora Incarnata) and find how much more efficient it is than chloral and the bromides, and how free from their dangers and untoward effects. The next time you want to sedate a patient, use *Pasadyne* and experience the surprise spoken of. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

WEBSTER'S NEW INTERNATIONAL—The Merriam Webster:—Every day in your talk and reading, on the street car, in the office, shop, and school some new question is sure to come up. You see quick, accurate, encyclopedic, up-to-date information.

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Selections

TYPHOID*:—Typhoid fever is an acute, infectious and contagious disease, due to the implantation and growth of the typhoid bacillus. This bacillus was first discovered in 1880 by a German scientist named Eberth—a short, rod-like bacillus, 1-1,000 of an inch long and 1-10,000 of an inch wide, with rounded or spore-like ends.

*Read before the Ohio Valley Medical Association, Evansville, Ind., November 9, 1911.

The seat of infection of the disease is primarily in the lymphatic system, more especially in Peyer's patches of the small intestines.

After the bacteria are taken into the system, generally through the alimentary canal, usually in milk, water, or unwashed vegetables, when the resisting power of the system is at a low ebb, trouble ensues. Usually first, but not always, we have a chill, followed by nausea or vomiting, or nosebleed, and, in children, usually convulsions. This is rapidly followed by a high temperature, higher in the evening than in the morning, of a step-ladder type. Diarrhea predominates, but there may be constipation, or it may be alternated. The pulse ranges from 90 to 120, in accordance with temperature, and even higher in more severe cases. If there are no complications and the disease follows a normal course, after the twenty-first day there is a gradual subsidence in the temperature. Tympanitis is common. On palpation there is a decided tenderness or pain in the right iliac region. This may even extend to the left side and up to the costal arch. Distention is frequently present. At the end of the second or beginning of the third week hemorrhages are common, and even perforation of the intestines is met with. At the end of the first week, or beginning of the second, rose-colored spots often appear scattered over the entire abdomen and chest and even the extremities.

In typhoid complicated with malaria or any of the other infectious diseases the only recourse for a positive diagnosis is by the various blood tests, of which the diazo reaction is the more accurate, but by no means positive. By this I mean the absence of the reaction does not eliminate typhoid, but when present it is always a positive indication. This is due to the agglutination power of the red blood cells in the presence of typhoid bacillus.

Treatment resolves itself into two essential components: Rest and diet. Nursing is the *prima factorum*. Very few

drugs are of any consequence. Salol or any of the various intestinal antiseptics are of varied importance. Quinine may or may not aid in reducing the temperature. Any of the so-called coal tar antipyretics are dangerous to use at any stage. Turpentine in the form of an emulsion may be given in small daily doses, which relieves the distention to a great degree, thus lessening the danger to hemorrhage and perforation. Hot turpentine stupes can be used where turpentine used internally is not readily borne by the patient. Whenever the temperature is over 102 degrees F. an ice sponge bath must be used, or ice packs, or ice baths. This is primarily essential, and must be repeated as often as necessary to keep the temperature within this bound. The great immediate danger in typhoid is from the extremely high temperature, which, if not reduced, soon causes a cardiac paralysis and death, and this can only be relieved by ice bathing in some form.

Hemorrhage, which is only indicated by an increasingly rapid pulse beat, is best met by ice applied to abdomen and the careful administration of morphine in large doses. Gelatin and adrenalin are also advocated by some with varied results.

Perforation is usually recognized by the acute pain and the sudden dropping of temperature and acceleration of pulse rate, and the general condition of the patient. This is purely a surgical condition, and, when recognized, must be treated by heroic surgical measures.

Diet is the great essential in successful management of a typhoid case. No sweet milk should be given. Peptonized milk or buttermilk, two ounces every two hours, answers admirably and can be alternated with beef tea extracts or strained soups. Albumen water or carbonated water is readily borne and can be moderately given, and lemon or orange ice, carefully strained, are suitable and grateful to the patient. Competent nursing is the great essential feature in treating a case of typhoid fever.

Prophylaxis in typhoid is very essential. All excreta must be disinfected—burning, where possible, is the best. Chlorinated lime, carbolic acid, not weaker than 1-20, are the best disinfectants. This should be applied to bowel and urinary movements and all vomited matter. All water and milk must be boiled. The source of the infection must be found and thoroughly disinfected. Of late, an emulsion of the suspended typhoid bacilli are given, both as a preventive and a curative measure. The results as yet are purely hypothetical, but should they be proven effective a great boon will be added to our defense which will help to eradicate typhoid or minimize its dangers, as have the serums in tetanus and diphtheria.

A typhoid serum is now on the market and can be administered during the course of the disease with varying success, due no doubt to unknown quantities. Immunizing doses of this serum will often abort an attack when given under special rules. This is now getting severe tests in army and navy hospitals. If all that is prophesied of this serum eventuates a new and very great weapon is placed in our hands, which will not only help to cure but will eventually eradicate the great dangers of this disease and prove a great boon to suffering mankind.—*L. Heiman, M. D., in Cin. Lancet-Clinic.*

TREATMENT OF THE MOTHER AFTER CHILDBIRTH:—Every household, even the veriest hovel, has an oven, some clean rags, and a yard or two of old sheeting or toweling; so there is never a good excuse for applying unsterilized vulvar pads in an emergency case of labor. Every mother dreads "blood poisoning" and fever; and instruct her how unwashed fingers, touching her pads, her vulva, or her breasts, may induce the complication she dreads and you may rest assured there will be no puerperal infection.

Without an assistant, or with an assistant, it is the duty of the obstetrician to remain at the woman's side at least

twenty minutes after the birth of the placenta, with a hand resting on the fundus. As to the use of ergot there are three points one should bear in mind. First, that a physiologically active and recently made supply must be carried; second, that the effect of ergot continues only half an hour, semihourly doses being required if the effect is to be maintained. Third, that it acts in fifteen minutes by mouth. In a normal confinement, ergot is certainly unnecessary and should not be given as a routine practice. If, for any reason, it is indicated during the second stage, it should be administered without fear of the bugaboo of hour glass contraction. This condition, like that of "adherent placenta," I have never observed in a fairly active practice in country, city, and hospital service. One who has mastered the technique of Crede's method of delivering the placenta will find it difficult to credit the old wives' tales of afterbirths "grewed fast to the spine"!

Folded in a sterile towel I carry an emergency kit of sterilized instruments, scissors, scalpel, hemostats, needles, sutures. With this at hand it is a simple matter to cut the cord and dispose of the infant; also, if need be, to repair a lacerated perineum. In a primipara with a rigid perineum, or where the fetal head is large, or the occiput posterior, the preliminary placing of perineal sutures is a harmless and satisfactory measure; it gives better coaptation than is possible otherwise and is much easier than the post partum suture.

No douche, no enema, no breast pump, no massage, no binder is a good rule to follow in all normal cases. Nature's germicide—the lochia—surpasses anything medicine can supply. Most breast abscesses are the result of pernicious interference by ignorant or uncleanly persons. A woman's "figure" is not preserved by wrapping about her a wrinkled, rolled up, hot ill fitting, unhygienic "binder"; the binder binds only in imagination, unless an insertion of elastic webbing is used.

When the patient begins to complain of backache, strap the relaxed sacroiliac joints with adhesive plaster strips across from spine to spine of ilium.

When she fails to urinate in twelve hours, set her up on a chamber pot—not a bed pan—and do *not* resort to the catheter. Most women are still good Indians; they do not drop dead when allowed to sit on a chamber pot.

Do not permit the temperature to be taken unless the patient is obviously ill.

When the lacteal secretion begins, support the breasts for a few days, if painful, with a binder or bandage. Repeat the warning: "Hands off." See that the baby is put to the breast every four hours from birth and every two hours after the milk appears.

On the third night a purge should be given—phenolphthalein, five to ten grains, well masticated, and followed in half an hour by some fruit; or jalap, five to ten grains; or castor oil, one ounce, in milk or in emulsion. For the stool, too, the patient should be permitted to sit on a commode if she so desires.—*Wm. Brady, M. D., of Elmira, N. Y., in N. Y. Med. Jour.*

TREATMENT OF THE THREE MAIN SYMPTOMS OF GASTRIC ULCER:—M. Lœper states that these symptoms are hemorrhage, vomiting, and pain. The treatment of the first is the most important part of the treatment of gastric ulcer. The essentials of this treatment are: Complete rest in bed, ice per os or in local applications, hot rectal injections, and drugs. In subacute hemorrhages perchloride of iron or bismuth salts may be useful; but adrenalin, chloride of calcium and gelatin are certainly better and may be given per os with excellent results in all cases of hemorrhage. Ergotin, ergotinin, or adrenalin hydrochloride may be given in hypodermic injections; their action is rapid but temporary and often there is a recurrence of hemorrhage soon after their use. Horse serum or normal saline solution are

also useful, the former in hemorrhages of long duration where there are distinct modifications of the blood, the latter in profuse or prolonged hemorrhages to make up for the loss of fluid of the system. Gelatin solution may also be tried hypodermically, but it seems to be less used nowadays than some years ago. The food must be as bland as possible, and Lœper is distinctly in favor of the old-fashioned milk diet for at least four weeks; however, when the hemorrhage cannot be checked rectal feeding must be tried. Vomiting must be checked by external means and cold applications (ice, ether, etc.), since the analgesic mixtures taken per os are likely to cause vomiting. Alkaline powders are very often of great value and generally well borne. For hypodermic injections, a mixture of atropine and morphine gives excellent results in most cases. Nitrate of silver may also be of use, but it is likely to give an extra stimulus to the mucous membrane of the stomach which is already so irritable.—*Progres Medical, Med. Record.*

TREATMENT OF ACUTE IRITIS:—In the treatment of acute iritis, N. Bishop Harman writes that atropine should be administered as a first step to fold back the iris and dilate the pupil. He recommends that an ointment of the atropine sulphate combined with cocaine hydrochloride, 2 per cent. each in equal parts of lanolin and petrolatum be prepared and a small piece placed below the lower lid every hour for the first four hours, and then every two hours until the pupil is widely dilated. Later, the strength and frequency of the application may be reduced to 1 per cent. night and morning. The author also recommends the applications of relays of hot fomentations to reduce the pain. In the worst cases, the region of the eye may be blanched by withdrawing blood by leeches applied to the outer canthus in order to hasten the action of atropine. The severity of the pain may be checked temporarily, at least, by instilling a 5 per cent. solution of dionin.

For indirect treatment, it is well to give a purge at the outset. The subjects of iritis nearly always have a foul breath, and are constipated. Any drug that will give a free and watery stool will do, and to aid this plenty of water should be given with and after the draught. Absolute rest in bed in a dark room should be insisted upon, and alcohol and tobacco made taboo. In any case of which the origin is indeterminate or pending its determination, an alterative is useful, and there is no better than mercury iodide—5 grn. of potassium iodide with a dram of the liquor of perchloride of mercury. If the case be syphilitic, it is first-rate treatment; if it be due to gonorrheal rheumatism, it is good—better than vaccine treatment; only if there be arthritis at the time, salicylates or acetosalicylic acid are better.—*The London Lancet.*

CANCER RESEARCH:—A fresh impetus has been given to cancer research in New York recently and broader fields have opened up for the workers on that baffling problem. The appointment of Professor F. C. Wood to be director of Cancer Research in Columbia University, working under the George Crocker Special Research Fund, as announced last week, will permit the observation of cases in St. Luke's Hospital where Dr. Wood has a special service for scientific study and the laboratories of which are also under his directorship. The opportunities for clinical study have heretofore been quite inadequate, and this combination of forces will be sure to be advantageous. This need of clinical study has also been recognized by a "well known scientist" who prefers to remain anonymous, in his gift of \$100,000 to the General Memorial Hospital as an endowment for the maintenance of twenty beds for cancer patients. These beds have been placed at the disposal of the workers under the Collis P. Huntington Fund of Cornell University Medical College, who will thus have an unequaled opportunity for the bedside study of the disease.

Three volumes of the results of laboratory experimentation have already been issued by the Huntington Fund, and it is to be expected that this larger opportunity will lead to correspondingly greater returns.—*Med. Record.*

A SYMPTOM OF MENINGITIS:—Signorelli points out that in cases of meningitis a painful spot is always present, situated on the inner side of the upper end of the mandible, beneath the lobe of the ear and in front of the mastoid process. Pain is evinced by the slightest pressure of the pulp of the examining finger. This tender spot is found in every case of meningitis, appears at an early stage, and is slow in disappearing. Thus it is in evidence during the whole course of the disease. Its existence can be discovered earlier than can the stiffness of the neck, or Kernig's symptom. It often happens that an examination must be made of patients in a serious condition, unconscious or nearly so, frequently delirious and incapable of giving exact information about their illness. This is frequently met with in the course of acute fevers, such as septicaemia, and especially in enteric fever, malaria, etc. The idea of possible meningeal trouble always suggests itself in these cases. The actual proof of retro-mandibular pain is, therefore, a most important indication; and the appearance of rigidity of the neck and of Kernig's symptom will establish the diagnosis as correct.—(*Gazette des hopitaux.*)—*The Practitioner*, London.

THE CONTRAINDICATIONS to the use of arseno-benzol are: advanced syphilitic myocarditis; advanced syphilitic disease of the aorta or coronary arteries, or aneurysm; syphilitic aortic insufficiency; hemiplegia from ruptured syphilitic artery; advanced general paresis; advanced disseminated sclerosis; advanced tabes dorsalis; extreme debility or emaciation.—*Am. Jour. of Dermatology.*

MERCURIAL STOMATITIS:—Le Blaye (*These de Paris, Journal de Medicine et de Chirurgie*, October 10, 1911) has conducted an experimental research upon the etiology of mercurial stomatitis. He found it impossible to produce this condition in rabbits or guinea-pigs, but dogs were extremely susceptible, exhibiting the characteristic gingivitis and shortly ulcerating and gangrenous patches upon the cheeks and the tongue, resulting, unless the mercurial treatment was stopped, in death. The point of major interest in his investigation lies in the fact that a microscopic examination of the exudate from these ulcerating patches exhibited always many fusiform bacilli and spirochætæ identical with those described by Vincent as characteristic of the angina which bears his name, from which the author concludes that mercurial stomatitis is not due to the venereal infection, but is really the mercurial rendering the mucous membrane and the gums peculiar susceptible to this form of infection. This belief is somewhat accentuated by Moller, who notes that patients subject to Vincent's angina are singularly subject to the influence of mercury, and that diagnostic error is likely to result most seriously for them.

The therapeutic deduction from these facts is to the effect that mercury in any form is strongly contraindicated in Vincent's angina, and that strict cleanliness of the mouth, together with a mild antiseptic, is likely to be the most potent means of preventing the development of mercurial stomatitis.—*Therapeutic Gazette*.

VALUE OF THE WASSERMANN REACTION IN A GENERAL MEDICAL SERVICE:—O. Weill tested all the patients who entered his medical service during six months with the Wassermann reaction. None of these patients came in on account of florid syphilis, and all syphilitic cases were supposed to have been sent to another clinic. The patients tested were 225 in number; of these 64 reacted positively

to the Wassermann test, that is, 28.44 per cent. After the positive test they were carefully questioned as to their previous illness and in all cases they admitted having had syphilis. There were among these patients cases of visceral sclerosis, diabetes, bronchial dilatation, aortic dilatation, neoplasms, icterus, cerebral hemorrhage and softening, tabes, general paresis, amyotrophic lateral sclerosis, Jacksonian epilepsy, meningomyelitis, and other nervous phenomena. The author's results give a valuable demonstration of the value of the Wassermann reaction in general medicine. This reaction allows one to recognize many case of syphilis that would not be otherwise detected, and to treat them properly. It shows the terribly disastrous effects of the disease and the profound mental and moral decay that it causes. Nearly all the nervous maladies of organic form seem to be due to syphilis.—*Jour. Médicale de Bruxelles*.

POTASSIUM NITRATE IN MEASLES:—Ferrer, of Valence, has returned to potassium nitrate as his remedy in measles. He pronounces this salt antitoxic, lowering fever, rapidly modifying the exanthem and causing the same to give way no less promptly; preventing and avoiding the complications—cerebral, pulmonary, and intestinal—induced by morbillous virus. Complications due to microbial associations are rare when this medicament is employed early, but if they have already appeared it is powerless. The dosage he employs is 30 to 90 cetigrams during the 24 hours, divided in three or four doses, for a child of one year or more. Having never noted disagreeable effects, Ferrer believes these doses might be increased. Given early, potassium nitrate aborts measles; it may even possess some prophylactic value, although not so positive as a previous attack.

Not one case of relapse occurred among children treated with this remedy. This drug might be tried in alternation or in association with calcium sulphide. Intestinal cleanliness, of course.—*Clinical Medicine*.

NEW JERSEY TUBERCULOSIS LAW:—Governor Wilson of New Jersey has recently signed the bill passed by the legislature which is designated the most advanced legislation so far enacted for the control of tuberculosis. It provides that tuberculosis patients who refuse to obey the regulations of the State Board of Health as to prevention, and thus become a menace to the health of their associates, shall be compulsorily segregated by order of the courts, in institutions provided for this purpose. If any such patient refuses to obey the rules and regulations of the institution in which he is placed he may be isolated or separated from other persons and restrained from leaving the institution. The law further provides that all counties in New Jersey shall, within six months from April 1, 1912, make provision in special institutions for the care of all persons suffering from tuberculosis within the county limits. Maryland is the only other state which has enacted legislation providing for the compulsory segregation of dangerous cases of tuberculosis, although in a few of the larger cities this power is exercised under the provision of the sanitary code.—*Med. Fortnightly*.

THE OATMEAL "CURE" IN DIABETES:—Von Noorden's oatmeal diet has proved of great value in some cases of severe diabetes melitus. The gruel is made by adding to 250 gm. cooked American oats the same weight of washed butter, mixing thoroughly while hot and serving through the day (fried, if desired) in three or four portions, allowing also one or two eggs at each feeding. It is best says Falta (S. Souse, in Interstate Medical Journal), to keep the patient on as low carbohydrates (vegetables) as he can stand without danger, for two days before the "cure," then give the gruel for 3 or 4 days, then two more days of vegetables, and in case the desired result is not obtained another course of oatmeal.—*Denver Medical Times*.

TYPHOID INOCULATION:—Several papers on preventive inoculation against typhoid fever were presented in the section on preventive medicine and public health at the last meeting of the A. M. A. Dr. F. W. Hachtel and Dr. H. W. Stoner, both of Baltimore, urged that all civilians "should be advised to be inoculated against the disease." Boards of Health were advised to adopt this measure for the protection of the public, and urged to distribute the vaccine free of charge.

The results of an interesting series of experiments in inoculation for the prevention of typhoid fever were given by Dr. Lesley H. Spencer, of Boston. He told of three years' experience with anti-typhoid inoculation in training schools for nurses in Massachusetts and the remarkable diminution of typhoid fever among inoculated individuals. So many nurses contracted typhoid in the Massachusetts hospitals that Dr. Mark W. Richardson, secretary of the State Board of Health, directed Dr. Spooner to discover a method for preventing the spread of the disease.

During the last three years Dr. Spooner said, more than 1300 nurses and others exposed to the disease have been inoculated in 23 of the Massachusetts hospitals. The process was unattended by danger and a marked diminution of new cases resulted. In fact, during the three years there have been nearly nine times as many cases of typhoid among the uninoculated persons in the hospitals as among those who received this treatment.—*Medical Herald*.

TO ESTIMATE THE WEIGHT OF ICE:—A close estimate in the weight of ice can be reached by multiplying together the length, breadth and thickness of the block in inches, and dividing the product by 30. This will be very close to the weight in pounds. Thus, if a block is 10x10x9, the product is 900, and this divided by 30 gives 30 pounds as correct weight. A block 10x10x6 weighs 20 pounds. This simple method can be easily applied, and it may serve to remove unjust suspicion, or to detect short weight.—*Exch.*

TREATMENT OF CHANCROIDS:—R. M. Toll recommends the following treatment: Wash the ulcer with a 1 to 1,000 bichloride solution and dry thoroughly with a cotton swab. Apply a drop of 4 per cent cocaine solution. After a minute touch up the raw surface with pure phenol and follow in ten seconds with alcohol. That is all. No powders or dressings of any kind are required. Instruct the patient to return in three days. It is astonishing how much improved the ulcer will be. The raw area will be smaller and shallower and surrounded by sloping, healthy skin—giving it the appearance of a miniature crater at the top of a miniature volcano. Repeat the same treatment to the raw surface remaining, and continue so every three days until the ulcer is entirely healed. This will occur after five or six treatments, without leaving a sign of any previous infection.—*Medical Record*.

DIABETIC COMA:—Labbe and Carrie maintain that they have had recoveries from profound diabetic coma after the injection of sodium bicarbonate. They injected 500 grams of a three per cent solution intravenously in one case where the patient was deeply unconscious and the secretion of urine had almost ceased. As the patient improved slightly they gave internally sixty grams of the salt in vichy. The next day there was a chill and a jump in temperature, but the patient was conscious and lucid. For twenty-eight days the treatment was continued along the same lines; and, with the exception of a relapse into unconsciousness on the fifth day, the patient improved rapidly and is now well. The alkalization of the blood should be begun, according to these writers, as soon as there are premonitory symptoms, and should be given fearlessly in large doses.—*Critic and Guide*.

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Original Communications.

SYPHILIS OF THE NERVOUS SYSTEM.*

By Henry Morris, M. D., of Nashville, Tenn.

Abnormal behavior of the cellular elements of the cerebro-spinal fluid as demonstrated by microscopic investigation has established the effect of syphilis and its profound impression exerted upon the structures of the central nervous system. The disastrous damage produced by it and the interference of normal function tending gradually to the process of absolute dissolution of those centers governing the same, is also clearly shown. Basing my deductions upon the study of modern pathology representing

*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, July 16, 1912.

the disease effect, of a causative agent, the spirochæta-pallida and its toxins as manifested by numerous and varied symptoms we note the intricate and complex phenomena resulting.

Every syphilographer or neurologist of note or experienced practitioner of medicine who treats or follows such cases throughout their life history, is struck at least by the uncertainty of positive data denoting the exact time at which the alteration and involvement of the structures of the central nervous system takes place after the invasion of the organism causing the disease. Theoretically it is an easy matter to make those classical distinctions as regards the division of the disease into primary, secondary and tertiary periods. It is best for the sake of convenience and descriptive discussion that this arrangement should be followed.

Practically I seriously doubt if the lines of demarkation can be so sharply drawn as outlined by the various text books on the subject, in the actual field of practice. Logically considered, is the arrangement such that one can positively assert with accuracy the exact time when one period terminates and the other begins? And do we know in all cases, especially those relating to changes affecting the central nervous system, when they actually commence? It is not of so much consequence, however, whether such changes really begin with the initial stage of incubation, or whether they arise later in the course of the affection, if we recognize them in time. The most important point to realize is, that something definite ought to be accomplished at the very incipency of the invasion, to prevent the ravaging influences upon the nervous system. It is less difficult to prevent these lesions, than it is easy to treat them afterwards. The occurrence of so much central phenomena as seen in many cases heretofore, improperly treated perhaps, clearly proves our helpless attitude in this unsuccessful combat.

Whether the serious damage inflicted upon nerve structure is due directly, or remotely to the intensity of the infection—the spirochæte and its toxins—or the greater susceptibility upon the part of the host, or the greater inadequacy of the treatment, or to some other obscure underlying factor, is another problem to be solved. It is true very fortunately for the patient that clinical symptoms do present themselves, denoting the approach of central involvement, some considerable time before serious and irreparable lesions occur. Taking the histologic features of the initial lesions, as the first manifestation after the invasion of the spirochæte and its toxins at the point of entrance, we find there occurs at that time a localized cell accumulation pressing upon and invading the capillaries, producing innutrition of the round cell infiltration of the adjacent tissues, causing what is termed the so called induration, which is shortly succeeded by the primary adenopathy. The infectious agent now traverses the lymphatics, gradually or rapidly as the case may be, making its way to the general circulation with a morbid activity and an abnormal tendency to cell proliferation. Having effected an entrance to the blood stream it then follows the blood current, and it is only a matter of time until the invading organism and its toxins have been widely distributed through all parts of the human subject. The same pathologic changes are multiplied as the spirochætes advance, more proliferation of cells, more hyperplasia, more innutrition and subsequent absorption, or dissolution of the cells of the organs or tissues involved occur unless relieved or modified by treatment. The central nervous system is finally reached by spirochætes, blood vessels become partly choked, cell life impaired or destroyed, and the graver aspect of the disease at once becomes apparent.

Tabes, paresis, certain forms of myelitis, myelomalacia, encephalomalacia, meningitis, endarteritis, neuroretinitis, gliomas, gummatous formations and the like rapidly assert themselves and indicate the profound intoxication and the

baneful effects exerted upon this portion of the anatomy.

Erb says that spinal paralysis and meningeal involvement is followed by lymphocytosis and increase of globulin. I think it is also a settled point that the *spirochæte pallida* and its toxins is the causative agent of the initial inflammation of the linings of the brain and the cord, which is followed when not successfully treated by anterior root neuritis and cord degeneration. No one contends for a minute that therapeutic measures of any sort will relieve these dead centers or bring back to life the function of a cell that has been annihilated by complete degeneration of its cellular elements. It is not in the province of this paper to reach these cases. The proper treatment should have been applied before this to have prevented this sad occurrence.

Syphilitic toxins bear an important relation to the etiology of early syphilitic nerve disease, and also occupy a prominent position remotely in the relation to some of the late types of nerve phenomena. Local impairment of nutrition is likely to determine syphilitic action as the result of acute complicating diseases. Gout, rheumatism, pneumonia, tuberculosis and especially grip are strong factors that exercise, aggravate and predispose to an early nerve involvement. Such sources of irritation as alcoholism, sexual excess, mental overexertion, worry, defective elimination, and the like, act as material agencies in bringing about a greater vulnerability of tissues and likewise pave the way also to early nerve disturbances. These contributory factors with the toxins of the *spirochætes* certainly must have considerable significance in the production of cephalalgias, neuralgias, bone pains, myalgias, paralysis, and rare cases of mental disturbance as found in syphilis. These conditions are the resulting expressions of the irritation of both the central and peripheral part of the nervous system.

According to Lydston, they act apparently:

- a. By direct intoxication of nerve tissue: 1. Central;
2. Ganglionic; 3. Peripheral.

b. By the induction of vaso-motor changes via the sympathetic ganglia or the so called monarchical vaso-motor centers in the medulla: 1. In the vessels of the central nervous system; 2. In peripheral vessels; 3. In visceral vessels.

c. Direct intoxication and irritation of vascular tissue producing in the nervous system: 1. Active hyperemias; 2. Passive congestion; 3. Inflammations of a low type; 4. Hyperplasias.

Lydston again says, in discussing organic or functional nervous disturbances, that it is produced by syphilitic new growths in numerous ways, namely:—

1. By invading the lymphatics surrounding the nervous structures;

2. By involving the tissues chiefly of the lymphatic vessels surrounding the blood vessels, supplying or draining the parts;

3. By invading the arterial walls;

4. By infiltration of connective and other tissues about the nervous structures;

5. By involvement of the nerve or brain parenchyma proper;

6. By involving nerves sheaths, or cerebro-spinal-meninges.

These various conditions act by producing: 1. Innutrition; 2. Pressure innutrition, and occasionally degeneration; 3. Passive hyperemias and edema from nervous obstructions; 4. Localized anemia (ischemia) from arterial obstruction; 5. Blocking up of the affected area by lymphatic obstructions.

As illustrative of early spinal cord involvement in syphilis, H. M. Moyer cites the following case:

"I was called to see a woman about thirty years of age, who was said to be suffering from an obscure nervous trouble. The disease had begun some weeks before I saw her, with severe pains in the back and shooting pains in legs. These symptoms had gradually increased until within a few

days of the time, when she came under observation, at which time she was compelled to take her bed. At the time I saw her she was apparently very sick and suffering excruciating pain, particularly in the legs and a dull heavy aching in the back. She was very restless and sleepless. The pains were described as shooting or darting up and down the limbs; the feet were especially painful, and there was a feeling as though hot sand was applied to the soles. On examination there was no special atrophy, though there was perhaps some loss of power in the legs. She was able to stand with the eyes open, but with them closed she would immediately pitch forward. The knee reflexes were completely abolished. There was impaired tactile and temperature sense in the lower extremities. At this examination I detected a diffuse macular and papular eruption pretty generally distributed over the entire body, and which up to that time had not attracted the attention of the attending physician. The eruption was also present upon the palms of the hands. Suspecting the specific nature of the eruption I immediately questioned the husband, who admitted that about ten months before he had been infected, but after six months treatment, his physician advised him to marry and he had done so.

"To my mind there was no question that the specific infection was directly responsible for the acute ataxia in which I found the patient. An examination of the genital organs did not reveal any primary sore. I saw the patient on one or two occasions after this visit, and I learned subsequently from her physician that, under the free use of the iodids with mercurial inunction, the pains rapidly disappeared, and the patient made a quick recovery."

Quoting from Lydton, "Wille says that mental symptoms may appear two months or even two weeks after infection, certainly with the onset of secondary symptoms. Hildebrand has had a very similar experience.

"Leubuscher was the first to establish the existence of

mental symptoms during the secondary period. Prior to his article, these had been regarded as tertiary accidents.

"Berthier some twenty-seven years ago reported several acute cases of insanity occurring during the secondary period. Fournier has described several cases of insanity due to secondary syphilis, varying in type from confusional insanity to cataleptoid states. .

"Meikle has observed several cases of insanity due to secondary syphilis, in which the psychic effect of syphilis was similar to that of alcohol. Clouston substantially agrees with Wille. He says psychoses occur in the secondary stages of the disease, coincidentally with the eruption and are curable and rare."

Cadell, Regis and Luys practically admit the same thing.

LATE NERVE SYPHILIS.

Organic syphilis involving nerve and brain presumably are only met with in late syphilis. Of course these cases are more severe, and have a graver prognosis, quite obviously. Damage in the active stage lesions produces a low grade of inflammation, with connective tissue proliferation, vascular and lymphatic obstructions. Prolonged treatment, mental worry, prolonged syphilization, alcohol or other excesses, resistance to remedies assist in favoring the production of neoplastic material in and about delicate nerve structures. It is believed, the syphilitic infection per se, has long since become exhausted, the nerve and brain lesions resulting from mechanic and nutritional disturbances, localized deposit of syphilitic origin, either about or in the structure involved, or diffused interstitial deposits and proliferation of obstructive connective tissue, are productive of paralysis such as hemiplegia, paraplegia, and monoplegias of various kinds. Gummy tumors and deposits about the vascular walls of the brain and meninges interfering with the cerebral circulation are prolific causes, and when followed by vascular degeneration and rupture produce apoplexy and hemiplegia. Any of the cranial or spinal

nerves may become involved during the stage following gummy deposits, with subsequent destruction of normal tissue elements.

Syphilomatous nerve deposits should be removed as soon as possible. Their insidious nature requiring hasty action before permanent disturbance of the lymphatics and blood vessels occur. The nerves of special sense as manifested by modified taste, sight and smell are frequent occurrences, syphilis seeming to exert some special predilection for these structures.

SPINAL CORD.

Here again we have a state of paralysis developing as a result of gummy-infiltration and localized cell deposits. Erb maintains sixty-one per cent of cases of locomotor ataxia are due to syphilis. Fournier and Ricord attribute the same to a large majority of the cases. Taylor of New York opposes this view. This opposition to the luetic theory of Tabes by many authors is probably due to its lack of response to anti-syphilitic treatment.

The spinal cord is a sensitive and delicate structure. It is on this account that it is extremely susceptible to the masked changes of a pathologic nature with which syphilis is invested. It may be that the insidious cord changes during the active period without deposit symptoms manifesting the same are responsible for the occurrence of locomotor ataxia in the later periods.

Lydston says "nerve impoisonment or neo-plasmic deposits produced by syphilitic toxins, syphilized cells and true syphiloma symptomatically speaking can be relieved by treatment, but the nerve scars can not be removed.

Let me take up briefly the alteration or changes that occur in the cerebro-spinal fluid when syphilis has reached the stage where involvement of the central nervous system occurs. In the normal fluid there is present about eight or ten lymphocytes to the cubic millimeter. The fluid is clear, the globulin normal, and there is an absence of spiro-

chætes and a negative Wasserman reaction. In syphilis of the spinal cord and brain there is a marked increase in the number of lymphocytes, polymorpho nuclear neutrophiles, and some increase in globulins, varying in proportion and depending upon the increase of the other cellular elements, the presence of spirochætes, a slight change in color and a positive Wasserman reaction. I understand in general paresis the globulin is greatly in excess, as compared with other cellular elements, more so than in any other syphilitic disease of the nervous system.

The results of the examination of many specimens of this fluid by trained and competent bacteriologists has established proof of the changes that do occur such as I have already mentioned, and are sufficient to make a diagnosis of syphilis of the nervous system.

If these findings are reliable and trustworthy, and I believe they are, in the hands of competent men, they certainly teach us many interesting and instructive lessons revealing much of the obscure phenomena that has heretofore been hidden behind the shadow of incomprehension. Some medical men are rather surprisingly indifferent in accepting the laboratory findings of even competent bacteriologists along these lines as accurate and reliable. Nevertheless, it remains true that many of the findings are satisfactory and point the way out of the difficulty. We are compelled to use much of such data to base or direct our treatment in this disease. From a conservative standpoint it is well that the train of laboratory findings should be regulated and held in check when running, scotched by a brake, full of clinical findings. Laboratory finding and clinical symptoms should support each other and impart increased strength in forming our deductions. Thus affording a safer footing upon which to base out attack against disease. I will admit often they stand in conflict and directly opposite one with the other. Often they contradict and produce serious embarrassment to the diagnostician who is putting forth every honest effort to arrive at a correct solution of the

difficulties, and to break down the barrier that stand between him and the successful treatment of these and other similar cases. Yet this state of affairs does not warrant one in discrediting or discounting the true findings, the value of which we must acknowledge. In many instances there is ample proof of this contention. I make mention of this lack of faith in the findings upon the part of some members of the medical profession because I feel that the competent and trained bacteriologists and the microscope have contributed largely in revealing the true pathology in cases of syphilis of the brain and spinal cord, and due credit must be bestowed upon those to whom it so rightfully belongs.

Is it not time to drop obsolete methods and moss-covered ideas? To reject many of those procedures of the past hoary age—weighted with the mildew of antiquity? We take our being in a progressive age where we must train on. We must not retreat before the enemy. We must advance, although our efforts are signed in the baptism of fire. Here we have a condition of circumstances that call for dernier precision in the use of the therapeutic art to cope with the destructive influences that lie before us as obstructing barriers in our pathway towards the much sought for goal of disease freedom.

The forces of the human being are of an indeterminate quantity. In many instances its abundant ability to successfully grapple with invading organisms cannot at the present time be accurately measured. No man has solved the individualism of the individual. No, not yet.

Again, the mind of the conscientious worker in the field of medicine must be broad and liberal enough not to be carried away by the discovery of any new remedy or procedure that has not stood the test of time. Again, it should not be rejected or condemned until it has had a full and impartial hearing before a body of men competent to pass upon its merits or demerits. I have been impressed with the fact that the *materia medica* contains a number of

useful and active agents for the treatment of syphilis. I am convinced also that in a large number of cases, indeed in the majority, mercury or some of its preparations began sufficiently early, has worked wonders in controlling, preventing or at least modifying syphilis of the nervous system. Thousands and tens of thousands of cases of syphilis have been treated and relieved and have never had central nervous system lesions. Under such circumstances it is but fair to give mercury just credit. It is due especially when it is administered to the patient properly and when the patient's life and habits are absolutely regulated and controlled by an intelligent physician who understands thoroughly the treatment of the many phases of this disease. I am further convinced from my own personal experience and the reported cases of many competent observers that to our inability to control these patients and their habits, and their regular attendance at the office with the long drawn out treatment necessary under the mercury regime, that many failures occur. That it is in these cases, and they constitute a great many, that our chief reliance must be placed in the potent salvarsan, at least as a part of the treatment. It is the rapidity of its action that electrifies the patient and holds him spell-bound under your guidance. With mercury, iodine and salvarsan I think the conditions can be successfully met in most cases. It seems there is some diversity of opinion as regards the choice of the best route for the administration of salvarsan. Any route including rectum, vein or muscle has its special advocate. For my part it matters not so much in the majority of cases if the condition is reached and the patient is relieved. My personal experience in the administration of salvarsan has been the selection of the intravenous route only. I like it because it is painless, effective and intensive in its action, and used in conjunction with mercury and iodine it relieves and cures most of the cases of syphilis regardless of the period. There are, however, a number of cases of central nervous involvement where even mercury and salvarsan as

used in the past has failed in its purpose. Not the cases I mentioned above of a degenerative type, but those cases preceding such cases, of the earlier tertiary type; those cases where meningeal and spinal involvement have taken place even to the extent of producing anterior root neuritis, cases in which the blood examination shows a negative Wasserman; and the cerebro spinal fluid, the presence of spirochætes and a positive Wasserman reaction. It is these cases that receive practically no benefit from the customary treatment.

All medical authorities are agreed that the therapeutic agent, to be effective, against the spirochæte, must be brought in direct contact in order that its parasitocidal effect may be exerted upon the etiologic factor producing the disease, and I doubt seriously if this can be accomplished in certain cases with the remedies as used at the present time.

Quoting Erlich when he says he had created an experimental therapy, studying biologically any curative processes in experimentally induced diseases, that he had found certain specific chemo-receptors which caused anchoring of the drug. This fact established its parasitocidal effect. He further claims that the success of his work depended largely upon this conception of specific chemo-receptors which he was able to demonstrate in this work. He proceeded biologically and chemically experimenting in the field of those diseases superinduced by trypanosomes and spirilla, and after years of toil proves that a medicinal substance can only act upon the bodily system by being directly incorporated in it. With this data as a working basis the arsenical derivative salvarsan was launched into a prominent existence, which has a special affinity for its prey, the spirochætes only, leaving the tissues of the host in a harmless condition. Now, if this be true, that a medicinal substance can only act upon the bodily system by being incorporated in it, I think I am justified in making a suggestion for an-

other route whereby probably this claim can be fulfilled for these cases.

Flexner and other eminent authorities have long since realized in the treatment of cerebro-spinal meningitis with his or other serums, that nothing has been accomplished in a curative sense worthy of consideration when compared to the administration by the intra-spinal route of these serums for the relief of these important structures. Intra-venous, intra-muscular and subcutaneous introduction of the same serum for relief of these cases have met with signal failure.

It is true cerebro-spinal meningitis, although acutely active in the rapidity of its declaration, in the quick production of grave and serious symptoms, in the intensity of its infection, differs materially from that of the much slower syphilitic occurring phenomena, yet both are alike in the involvement and destruction of similar structures. For this reason no one will contend against or doubt the wisdom of intra-spinal medication in the treatment of all cases of cerebro-spinal meningitis. From this I take it that there are ample grounds, in theory at least, for the suggestion of an intra-spinal injection of salvarsan to be repeated as often as is necessary, used in conjunction, if need be, with an intra-venous or intra-muscular injection, aided by mercury and iodine when indicated for the relief of lesions of syphilis of the nervous system. Pathology itself clearly shows pressure innutrition in this stage, blood vessels thicken and diminish in their caliber, hyperplasia of tissue covering nerves and the higher centers, and so these are the cases that should be benefited by administering salvarsan by the intra-spinal route. Animal experiments will have to be conducted to get the proper and approximate dose for these cases. I believe it can be worked out, and therefore offer this suggestion to the members of the Academy of Medicine for what it is worth.

As a closing remark I will add I do not believe the salvarsan we have all being using in the past it suitable for

this purpose. Its toxicity and irritating qualities to such sensitive structures would be a hazardous risk. It is possible the new salvarsan, designated by different names, called by some the novo or neo-salvarsan, may answer the requirement, for it is neutral in reaction, non-toxic and extremely soluble in water.

**"BACKACHE," "SCIATICA," ETC., SYMPTOMS OF
MECHANICAL LESIONS OF THE SACRO-
ILIAC JOINTS.**

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Since Goldthwait of Boston called the attention of the profession a few years ago to the importance of mechanical lesions of the sacroiliac joints, our view of a very large group of symptoms has been radically changed. It is no longer justifiable to merely consider every case of pain in the sacral and lumbar regions as due to "female trouble," lumbago or muscular strain, nor every case of pain in the course or distribution of the sciatic nerve as sciatica. It has been conclusively proven that a large proportion of such cases has a very definite pathology in the sacroiliac joints. Cabot, Osgood and others attribute the majority of backaches to lesions of this joint.

It is difficult to appreciate fully these mechanical disturbances without a more than passing knowledge of the anatomy and function of the joint. I have been greatly interested and enlightened as to certain points by the dissection of several of these joints in the cadaver. The following observations bearing on this subject were noted:

The sacrum can be rotated slightly between the ilia, the axis of rotation passing transversely through upper part

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of the second sacral vertebra a little above the middle of sacroiliac joints. Motion backward of the upper sacrum is freer than motion forward. Slight antero-posterior and up-and-down motion can be elicited at the symphysis. After dividing the ligaments at the symphysis pubis, by moderate traction the pubes can be separated laterally one-half to three-fourths inch; one pubic bone may be lifted (while the other is depressed) one-half to three-fourths inch above the other. Muscles and fascia are now dissected from about the sacroiliac joint on one side leaving the ligaments intact; motion is now noticeably greater on this side. The obturator and gluteal nerves, the lumbo-sacral cord and other upper branches of the sacral plexus are seen passing immediately across the front of the joint. The anterior ligaments are thin and much less resistant than the posterior ones which are composed of numerous fasciculi attached over broad areas on the ilium and sacrum. Ligaments are now divided and the bones disarticulated. The joint surfaces present slight elevations and depressions but do not feel rough or very irregular as the finger is passed over them. They are completely covered by a smooth lining of synovial membrane with no adhesions or fibrous attachments. A small amount of sticky fluid is present in the joint. The contour of the articulating surfaces at the upper part of the joint is such that when the sacrum is rotated forward above, it necessitates much wider lateral separation between sacrum and ilium than when it is rotated backward and is therefore less liable to occur, being checked by the ligaments. This is a comparatively small joint, too, measuring two inches long, and one inch wide above, one-half inch at the middle and three-fourths inch below. Thus it becomes apparent that the size and shape of the joint surfaces are not, *per se*, conducive to marked stability but that weight and strains must bear very heavily upon the muscular and ligamentous supports.

If one will remember that this joint is a true diarthrosis with normally a limited amount of motion, and considers

that it is continually subjected to the strain and weight of the superimposed body, it can be easily seen how it may be sprained acutely with or without a subluxation and how by continuous strains a relaxation of the supporting soft structures will result, with hypermobility and weakness which induces further injury. This is a true joint, susceptible to the same disease as other movable joints. Tuberculous arthritis in this region has long been recognized, likewise the atrophic and hypertrophic arthritides.

There are several different types and degrees of injury to this joint with symptoms varying from occasional mild discomfort to complete disability with severe and incessant pain. The pathology is likewise variable, e.g., it may be a severe sprain with effusion and sometimes a partial dislocation, or it may be a slight strain such as would be produced in the knee by allowing the whole weight of the extended leg to be supported for a time by resting the heel on a chair, or as is often seen in a slight turning of the ankle, no pathology being demonstrable but accompanied by more or less discomfort.

A simple type of strain results from long continued stooping, sitting or lying. Goldthwait accounts for this by the fact that the muscles which are strong protectors at first become tired out after a bit, throwing the strain upon the ligaments, which causes an aching pain in the sacral and lumbar regions. When lying on the back, particularly on a hard surface that does not conform to the curves of the back, the lumbar spine tends to sag and cause a posterior rotation of the upper part of the sacrum with consequent strain of the sacroiliac ligaments. This is exaggerated by the relaxation of anesthesia and is responsible for frequent backaches after surgical operations. Sitting, especially in a lounging posture, produces the same effect.

This simple type of strain is usually easily relieved by removing the cause, with perhaps a light support in the form of adhesive plaster strapping. If continued, however, a chronic relaxation of the supporting structures of

the joint results with instability and a sense of weakness or pain on use.

Chronic relaxation may also follow the physiologic relaxation that occurs during menstruation, pregnancy and childbirth. It is frequently seen in rundown states of health where there is a general muscular and ligamentous relaxation. It is common in the tall, loosely built type of individual and may be associated with a neurotic condition. It also follows the acute severe sprains.

Acute sprain of the joint occurs either with or without a partial dislocation. This is often spoken of as a "stitch" or "crick" in the back. It may be produced by direct or indirect forms of violence of wide variety. H. L. Taylor reports a case produced by a violent sneeze. Merely stubbing the toe or a sudden turn or twist in an unguarded moment may be the exciting cause. It frequently occurs while lifting or carrying a heavy load or from a fall or blow. Chronic relaxation is a predisposing cause.

As previously suggested the displacement that usually occurs is of the upper part of the sacrum backward on the ilium. This usually occurs on one side only if it be the acute sprain, though this may be bilateral. The chronic strains and relaxations are more often bilateral. In the acute type there is more or less muscular spasm which accentuates any displacement and exaggerates the symptoms. Having noted this and believing that this spasm might be the chief hindrance to reduction of displacement, if present, I have used, in two cases which I shall report, Buck's extension (15 to 25 pounds) on the leg of the affected side to effect reduction and relief from pain. I have seen nothing in the literature of the use of this simple method in such cases and do not know if any one else has tried it. It has worked beautifully in two cases in which I have used it. Goldthwait and others advise reduction by manipulation under anesthesia in such cases.

The following detailed reports show the chief points in

diagnosis and treatment without going further into detail here.

Case I. R. M. J. Age 27. Medical student. In August, 1909, while assisting in lifting a heavy timber, "strained his back." Pain not very severe at first but gradually became worse for ten days, being more severe on sitting down. Slowly improved without treatment and has since had periodic attacks of discomfort about the sacroiliac region. Has employed salicylates, aspirin, counterirritation and massage at various times without relief. About April 1, 1912, I saw him in an attack, the pain being severe enough to interfere with his studying. Examination showed pain and tenderness localized over the right sacroiliac with some aching referred to the lumbar region. Stooping with the legs held straight or flexion of thigh with leg extended increased the pain as did hyperextension of the thigh with pressure over the joint. There seemed to be slightly more motion in the affected joint. Treatment: Adhesive strapping applied tightly, transversely, reaching as far forward on either side as the anterior superior spines and extending from the crests of the ilia above to the coccyx below. A pad of felt the size of the sacrum was placed in the central depression over the sacrum before applying the straps, thus assuring a more perfect support. There was complete relief in less than one hour which has continued with weekly renewals of the strapping.

Case II. Miss M. E. D. Age 15. Schoolgirl in one of our local seminaries. In December, 1909 patient fell down flight of steps landing on the buttocks, followed by severe pain in lower back with general muscular soreness for several days. Has suffered with back and hips more or less ever since, having to go to bed at times on account of pain and weakness. Had typhoid fever in December, 1910, after which was much improved but not entirely well. I saw case with Dr. Witt, Oct. 30, 1911. Two weeks previous to this and one week after entering school patient became much worse and had to go to bed, probably occasioned by much

climbing of steps and sitting at a desk all day. Symptoms: Pain in thighs, hips and sacral and lumbar regions, worse when standing, stooping, sitting, climbing steps, squatting and any motion producing movement in the sacroiliac joints. Nervous and sleeps badly. Pelvic examination by Dr. Witt, negative. Marked tenderness on pressure over sacroiliacs with some tenderness and hypersensitiveness over lumbar, gluteal and posterior femoral regions. Pain increased by hyperextension and flexion of thighs with leg extended and by rocking crests of ilia in opposite directions. The greatest pain could be localized in the sacroiliacs though it would radiate as described above. Motion could be felt in both joints. Spine was flexible but movements were guarded. No curvature of spine.

We made a probable diagnosis of sacroiliac strain and advised treatment accordingly. The mother was somewhat slow to accept this as she had in all consulted twenty-five physicians and several osteopaths and masseurs with diagnosis varying from hysteria to Pott's disease. However she agreed to take one more chance.

Treatment: Patient was strapped and ordered to lie in bed with a small pillow under the lumbar spine. Considerable relief was experienced by the next day and measurements were taken for a pelvic belt which was applied three days later and she went to her home at Memphis at the end of a week much improved. After leaving here she began to do badly again and I advised her to see Dr. Campbell in Memphis as the belt was evidently not affording the required support. This she did and Dr. Campbell, agreeing with the diagnosis, applied a plaster cast over the body and included the thigh on the worse side. She was kept in bed for a while then allowed to get up, wearing cast several weeks longer. I recently heard from her saying that she had had no pain since the cast was applied and that she thought she was well.

These two cases vary markedly in severity of the symp-

toms but both are good illustrations of chronic relaxation following acute sprains.

Case III. R. G. N. Age 20; male; student. Two years ago while working on college track team began to feel discomfort and at times sharp pains in lower part of back. Various body and leg movements, particularly stooping, caused severe pain. This condition, worse at times, with always a sense of weakness, has prevailed ever since. Has had pain and "cramps" in thigh and calf muscles frequently. Examination three months ago showed conditions similar to Case I. except that both sacroiliacs were very movable and tender and there was well marked tenderness over the course of the sciatic nerve on the right side. Adhesive strapping for two weeks has given complete relief to the present time.

This case shows the sciatic pain occurring in a chronic relaxation. There was also tenderness over the nerve trunk which is said to occur only in "true Sciatica."

Case IV. W. B. Age 62. An unusually strong and active man for his age. One day worked for an hour or two on a roof in crouching and other strained positions, after which had frequent pains about left hip and thigh. Sleep was disturbed for two or three nights. Was able to go about but would often have to stop and sit down in a severe attack. One week later while walking on the lawn was suddenly siezed with a stabbing pain in the left hip. He became sick and fell to the ground but a few minutes later, with great difficulty limped 200 yards to the house. He suffered intensely all day and night, unable to remain in any position for more than a few minutes. Was most comfortable when walking about in a stooped posture, and could not stay in bed at all. I saw him in this condition the following day. There was extreme tenderness over left sacroiliac, none in lumbar region. With knee flexed the thigh could be moved in all directions without pain. There were no evidences of traumatism of the hip joint. Flexion of thigh with leg in extension and hyperextension of thigh

caused sharp pain about sacroiliac, also shooting into the hip and thigh. The buttocks and thigh were hypersensitive to touch. Left posterior, superior iliac spine was more prominent than the right and there was marked muscular spasm on that side. He had the typical "flat back." No motion in the sacroiliac could be felt because any manipulation to produce it was unbearable. No symptoms referred to right side.

Adhesive strapping was applied and a quarter of a grain of morphine administered. He was more comfortable that night but the next day the pain returned as severe as ever. Believing he had a subluxation at the sacroiliac and not wishing to administer an anesthetic for the purpose of reduction on account of his age, I decided to try Buck's extension on the leg of the affected side as previously referred to. Within less than an hour after its application the pain was entirely relieved and remained so with the exception of a burning and hyperesthesia over the outer aspect of the leg which persisted for several days. I could keep him in bed no longer than three days. He had a marked sense of weakness about the hip for two or three weeks, but since that time has been practically as well as ever, nearly three months.

Case V. Mrs. R. B. Age 43. Mother of seven children. A strong previously healthy woman, has done a great deal of work about her home with rarely any discomfort about the back. While nursing a sick relative noticed at times aching in lower back and right hip for two weeks. Then suddenly while rising from a stooping posture was seized with sharp pain in region of right sacroiliac. She had cramping and sharp pains in thigh and leg and was tender over the sciatic nerve. The other features of this case were very similar to the preceding one. The same treatment by Buck's extension was employed with immediate relief. This patient has been up about a month and still has some weakness and discomfort if she attempts to go without the ad-

hesive strapping. She may require a more permanent form of support before cured.

The last two cases represent the type of acute sprain with some displacement and muscular rigidity. I recently saw an untreated case of this type of six months standing. He has a well marked displacement of one sacroiliac with a fixed lateral curvature of the lumbar spine. He has the "flat back," stooped attitude and walks with difficulty with the aid of a stick.

The essential treatment of all cases is, of course, rest and fixation. Some cases are more difficult to support than others and for this reason several forms of appliance have been used. Besides the ones mentioned in the treatment of the above cases may be mentioned the tight elastic trunks which are efficient but rather expensive, and a special brace to be attached to the corset as shown by Osgood. Any form of appliance must exert its lateral pressure below the iliac crests directly across the joints. For the more intractable chronic cases the surest means of relief is a properly fitting plaster cast with a period of rest in bed.

The milder cases are usually cured by one of the less cumbersome supports if worn continuously for a few weeks.

AMERICAN PROCTOLOGIC SOCIETY.

FOURTEENTH ANNUAL MEETING, HELD AT ATLANTIC CITY, N. J.,
JUNE 3 AND 4, 1912.

Continued From August Issue.

VALVOTOMY.

By George B. Evans, M. D., Dayton, Ohio.

Valvotomy as a factor for the relief of proctitis.

Valvotomy as a factor for the relief of obstipation and constipation.

Valvotomy as a factor for the relief of distinct and isolated ulceration of the distal side and adjacent to the valve.

Valvotomy as a factor in the elimination of bladder and prostatic symptoms reflexly.

The location of the valves. Every case of valvular trouble is accompanied by pathological changes in the valves, and if in the valve, then in the adjacent tissues.

Valvular obstructions are prolific of more trouble than we give them credit for.

Valvular obstructions are causative factors in the production of obstipation in a large per cent. of our cases.

Valvotomy is a justifiable operation, as it not only relieves obstipation and constipation, but often causes reflex and neurasthenic symptoms to disappear; frequently ameliorates and even cures proctitis, and by virtue of the drainage it secures, lessens the tendency to toxemia from intestinal origin.

MULTIPLE ADENOMATA OF THE RECTUM.

A Report of a Case with Systematic Relief by Simple Remedies. By E. H. Terrell, M. D., of Richmond, Va.

This article was a report of a case of multiple adenomata of the rectum and sigmoid, in a patient 42 years of age, who had been suffering for the past five years. He had frequent stools with mucus, some blood and a great deal of tenesmus. He was having from eight to ten stools daily. He suffered considerable pain throughout the abdomen. Examination showed numerous small tumors scattered through the rectum and sigmoid. Microscopic examination showed these growths to be adenomata. The bowel was intensely inflamed and contained many ulcers. Under irrigation of the bowel with boric acid and the administration by mouth of castor oil and aromatic syrup of rhubarb, improvement was almost immediate. In three and a half months the patient had gained seven and a half pounds, and was comparatively comfortable. The tumors were reduced in size and the ulcers gradually disappeared. While the adenomata are still present the patient is symptomatically cured.

Dr. Terrell emphasized the value of the administration of equal parts of rhubarb and castor oil, and thinks that in

simple ulceration of the rectum, this treatment alone is almost a specific. He calls attention to many reports of cases in which adenomata of the rectum are supposed to disappear, and points out that this condition must be merely a hyperplasia with inflammation, and, not true tumors, for the latter are permanent. As regards the predisposition of adenomata to become cancerous, he called attention to the fact that these tumors are benign and are consequently composed of mature tissue, so they can not themselves become immature tissue,—which is malignancy. Instead of a malignant degeneration, it is likely that matrices of immature tissue have also been deposited where so many matrices of mature tissue are found, and the growth of the adenomata, with the accompanying inflammation and ulceration, stimulates these immature matrices to develop into cancer; or, else, immature matrices are formed from the ulcers, just as they develop from ulcers, in cancer of the stomach. The simple treatment which he proposed not only relieves the patient's symptoms, but by lessening the inflammation and curing the ulcers, it, also, decreases the chances for subsequent malignancy.

PIGMENTATION OF THE RECTUM AND SIGMOID.

By Jerome M. Lynch, M. D., of New York City, N. Y.

The paper was based on six cases which came under the observation of Dr. Tuttle and himself. He divided pigmentation into Exogenous and Endogenous.

Endogenous—Hemochromatosis, Pseudomelanosis, Melanosis.

Exogenous—Pigmentation due to Chemicals or Metallic Pigmentation.

He proceeded to discuss the origin of pigment, and considered Pick's theory concerning the origin of melanosis in pigmentation of the large bowel, particularly interesting.

It is as follows:

That the connective tissue cells possess an enzyme tyrosinase which converts aromatic bodies into melanin.

After having reviewed the subject of Pigmentation, he reached the following conclusions:

That hemochromatosis is of bacterial origin; that the extent of the disease is dependent upon the severity of the infection; that the probable source of infection is the intestinal tract, possibly starting as an intestinal putrefaction; that this intestinal putrefaction lowers the vitality of the tissues, and thereby the cells of the mucous membrane lose their protective properties, consequently bacteria find ready access to the portal circulation. As a result of this the chromogenic function of the liver is interfered with, consequently the liver becomes surfeited with pigment, and is not capable of abstracting the iron from the hemoglobin, with the result that an excessive amount of pigment is circulating in the blood. That the cells of the intestine probably have a selective action for these pigments, and as a consequence they are deposited in the tissue. That local hemochromatosis may be due to repeated local hemorrhages, followed by infection, and that as a result of this infection the bacteria cause a hemolysis of the blood, forming pigment which resembles hemosiderin, hemotoidin and hemofucin. That these pigments may, or may not, give a reaction for iron.

So little is known about the structural products of melanin or melanoids, that it is difficult to give the origin of those bodies. Undoubtedly there are several distinct melanins, and their origins must also be distinct. The ferruginous melanins should be considered as originating from the blood pigment until further research proves the contrary. Most melanins yield endol, scatol and pyrol. It has been proved that the enzyme tryosinase is present in the tissues and further that this enzyme is capable of converting aromatic bodies into melanin.

That Pick's theory is ingenious and worthy of consideration, we admit; but there are points that are hard to reconcile with our present conception of cellular activity.

It is hard to understand why he should attribute to connective tissue cells a highly specialized function; that this is directly opposed to all our preconceived notions of this cell, which heretofore has been supposed to have only one function—that of binding other tissues together, with an enzyme of its own nourishment.

It is a well known fact that the cells of the mucous membrane have the power of neutralizing poisons and converting them into insoluble compounds. In the case of mercury and lead they are converted into sulphides, and as a result of this change, blackening of the tissues, somewhat resembling melanin, takes place.

Drs. Tuttle and Lynch believe that the cases reported by the English observers, were as stated, and should not have been included in Pick's series. Further, that as a result of the action of sulphate of hydrogen on the iron pigments, an insoluble sulphide of iron is formed, blackening of the tissues take place. This is a separate and distinct form of pigmentation, and should not be confounded with melanosis.

OBSERVATION UPON THE RELATIONSHIP OF TUBERCULOSIS TO PERI-RECTAL SUPPURATIONS.

By Collier F. Martin, M. D., of Philadelphia, Pa.

The author has found pulmonary tuberculosis so frequently associated with his cases of peri-rectal suppuration that he determined to report a consecutive series of cases, with findings.

The report comprises 376 consecutive cases, 75% being males, and ranging in age from 7 months to 87 years. The majority of these cases (322) occurred in the most active period of life, from 20 to 60 years.

He divided his cases into four major groups; the actively tubercular (144 cases), the chronically tubercular (68 cases), the phthisenoid (20 cases), and those patients in apparently good health, (55 cases). This would indicate that at least 212 cases or 61% were cases of known tuberculosis.

There were 309 operations performed on 306 patients, under various anesthetics; spinal anesthesia 145 times, ether 54 times, and local and other anesthetics on the remaining. He chose spinal anesthesia where no other preference was expressed by the patient or the attending physician, on account of the associated tuberculosis.

Following these cases for the past four years he has traced thirty-seven deaths, of which thirty-four died of active tuberculosis or its complications.

The abscesses or fistulae in most of these cases could not be classified, from their appearance, as being locally tuberculous. Where the tubercle bacillus was easily recovered from the tissues or discharges, there was usually a very active pulmonary infection present.

The writer believes that the usual explanation of the association of pulmonary tuberculosis with rectal suppurations, lies in the fact that any pulmonary lesion, however small or inactive, may so alter the patient's vital processes and so lower the opsonic index, as to make him particularly susceptible to pyogenic invasion. The same may be said of pyogenic infections in general, but the peculiar anatomic conditions existing in the rectum and its very active physiologic function, makes this a fertile region for external and internal trauma with subsequent inflammation and infection.

Traumatism is considered to be the chief active factor in impairing the integrity of the tissues.

The writer emphasized the fact that a careful lung examination should be made in all cases of perirectal suppuration. He also made a strong plea for a careful and extended supervision of the patient's general health for a long period after all surgical treatment had been discontinued.

The vital consideration in these cases is not the question as to whether or not the local lesion is tuberculous, but has to do with the presence or absence of active or latent tuberculosis in the patient, and his chances of having good general health after surgical intervention.

ANO-RECTAL DISEASE DUE TO VENEREAL INFECTION.

By James A. McVeigh, M. D., of Detroit, Mich.

Venereal disease is an important factor in the etiology of disease in all parts of the human system. Regional relationship of genital organs to anus and rectum render the latter especially prone to this kind of infection. Venereal disease of anus and rectum either direct, through practice of vicious habits, or indirect, or accidental, through extension of infection to these parts from other sources. Less direct infection of this nature in this than in foreign countries. Gonorrhoea, Chancroid and Syphilis, the principal venereal factors in ano-rectal disease. Description of symptoms, diagnosis and treatment of these conditions when appearing in disease of the rectum and anus. Report of a case.

FURTHER OBSERVATIONS ON PRURITUS ANI: ITS PROBABLE ETIOLOGIC FACTOR BASED UPON ORIGINAL RESEARCH.

By Dwight H. Murray, M. D., of Syracuse, N. Y.

This paper was a continuation of the work that he has been engaged in for the past two years and which he presented to the American Proctologic Society, at the Los Angeles meeting, in 1911.

From his experiences, since discovering that a skin infection, is the important factor in pruritus ani, he believes that we are now in a position to state that there may be two varieties of pruritus ani; one that may be coincident with some of the diseases of the rectum and in which the skin infection is not present. He designates this form as Pruritus Ani Simplex; the variety, which is chronic, in its character, and, in which the skin infection is present, he designates as Coccigenous Pruritus Ani.

He states that he is continually seeing patients who have all varieties of rectal diseases, including chronic diarrhea and proctitis, in which there is a leakage of moisture upon the anal skin; in very few of these cases does he find pruritus ani, and he believes that when it is present,

it is coincident rather than having been caused by these discharges occurring in various rectal diseases.

He gives a resume of an examination of 900 consecutive cases, in which he finds 490 cases of constipation, 369 of hemorrhoids, and 94 of pruritus ani. Of the 94 cases, which gave a history of pruritus ani, he finds that 5.5% of the 900 cases examined who had pruritus ani were constipated; 2.3% had hemorrhoids; 1.2% had some form of anal growth; 2.2% had ulceration; 2.5% had diseased crypts; 1.3% had hypertrophied papillae; .03% had polypi; .03% had fistulae. He believes that the relatively small percentage of each of these conditions that were present in the pruritus ani cases, show that they were coincidental when present and could not be classed as causes of pruritus ani.

Thirty-two, of these 94 pruritus cases, have been examined bacteriologically by him and all of them streptococic skin infection was the predominating condition.

He believes that the excessive moisture and the infiltrated condition of the skin in these cases, is due to the low grade inflammation caused by skin infection and is not the result of moisture coming from the inside of the anal canal.

He presented photographs of petri-plates, of a typical case, showing the immense numbers of streptococci at the time of the first examination; another photograph of the same case, showing that streptococci were not present in the culture taken from the anal canal, and another photograph of a petri-plate, of the same case, after four months' of treatment (one month after itching had ceased), in which last photograph, no streptococci were present.

He gives a report of his technic in greater detail than in last year's paper, because he has found that the last year's report was not understood by some physicians who had employed his method.

From some reports received he believes that stock vaccines will not give good results because they are made of a different branch of the streptococcic family than the one causing pruritus ani.

He gives detailed reports of the cases treated, both of the first and second series, showing very marked improvement in all of the cases and cures, so far as present conditions are concerned, of others.

He presented a series of twelve control cases, having a variety of rectal diseases, that are usually given in text-books as causes of pruritus ani, none of which had the disease nor did they show a skin infection.

He said that the conclusions of the first year's work still hold true, and he gave the conclusions of his second year's work as follows:

1st. It is shown by the nine hundred consecutive cases of rectal diseases, that constipation and hemorrhoids, or any lesion, are coincidental or may be predisposing, but not the exciting cause of pruritus ani.

2d. Even when there is a discharge of pus or other moisture on the skin about the anus it is not the actual cause of pruritus ani, unless there is a streptococcic or other infection of the skin. They may exist together but are then only a coincidence.

3d. All investigators, in making cultures, should use in addition to the hard media, the liquid media and Gordon's series of carbo-hydrates, if they wish to differentiate the streptococci and other bacteria.

4th. Avoid excessive reaction.

5th. Use small initial doses.

6th. Give subsequent injections only after the previous reaction has completely subsided.

7th. He suggests the following change in the nomenclature of pruritus ani, by recognizing two varieties:—Pruritus Ani Simplex, and Pruritus Ani Coccigenous.

COLONIC DILATION (CONGENITAL AND ACQUIRED) AS A FACTOR IN CHRONIC INTESTINAL OBSTRUCTION (OBSTIPATION).

By Samuel G. Gant, M. D., of New York City, N. Y.

The author stated that his experience warrants the belief that both acquired and congenital (Hirschsprung's) di-

lation of the colon is fairly common, and that they respond satisfactorily to treatment (usually surgical). He said that non-congenital dilation of the bowel might result from paresis, gormandizing, digestive disturbances or chronic intestinal obstruction, however caused, and when present, leads to constipation, fecal impaction, distention of the bowel, angulation, twisting and ptosis of the colon. He called attention to the fact that this class of patients suffered much less from intestinal auto-intoxication than persons afflicted with acute constipation. In his cases, the colon completely filled the abdomen, measured from three to many times its normal size, was considerably thickened, characterized by dilated blood-vessels and closely resembled an enormously hypertrophied stomach—for which it was mistaken in two instances. He mentioned having personally observed seven cases of Hirschsprung's disease and a still greater number of acquired dilation, wherein the patients had an evacuation every two or three weeks, following purgation and frequent enemata; except in two instances, that of a young boy, who moved his bowels only once in two months, and, of a young woman, who succeeded in accomplishing this but four times yearly. He said the chief manifestations of the condition were those of chronic constipation and fecal impaction, plus mal-nutrition, abdominal distension, pot-belly, extraordinary length of time between the movements and very large amount of feces discharged when an evacuation occurred, and that the diagnosis is fairly easy in the presence of the above symptom complex, because, with the aid of inflation and palpation or the assistance of the X-Ray, the size and position of the colon can be defined.

The writer maintained that temporary improvement occasionally follows medication and physical measures, which strengthen the bowel or minimize the effects of auto-intoxication consequent upon fecal retention, and that patients may for weeks or years be kept fairly comfortable when given close attention and the bowel is kept open with

lubricating oils, laxatives and frequent high enemata, but that a cure is not possible except through one of the following surgical measures, viz:—

- | | |
|-------------------|--------------------------|
| 1. Coloplication. | 4. Intestinal exclusion. |
| 2. Colopexy. | 5. Colostomy. |
| 3. Resection. | 6. Tapping. |

He found coloplication effective in both congenital and acquired dilation, without bowel displacement. Colopexy proved satisfactory where there was ptosis with moderate dilation, but, in aggravated cases where the bowel was both enormously dilated and markedly ptotic, he advised coloplication and colopexy, using the infolding sutures for suspensory purposes.

He advised resection of all or part of the colon where it was irretrievably large, displaced or bound down by adhesion, and reported a case where the sigmoid flexure, descending colon and left half of the transverse colon were excised.

Exclusion had proven satisfactory, and he reported five cases treated by dividing the ileum near the cecum and completing the exclusion by ileo-sigmoidostomy.

Colostomy was looked upon with ill-favor, because patients strenuously object to an artificial anus, and, a secondary and dangerous operation is required to re-establish continuity of the intestines.

Tapping, he said, deserved no consideration, because it is unscientific, dangerous and ineffective.

In closing, Dr. Gant said that he frequently combined the above operations with appendicostomy or cecostomy, so that through and through irrigation could be immediately established and the period of convalescence shortened. He also stated that colonic exclusion and colostomy were considerably less dangerous than resection, and were usually effective, since the bowel rapidly contracts after their establishment.

ACUTE POST-OPERATIVE INTESTINAL PARESIS.

By J. A. MacMillan, M. D., of Detroit, Mich.

1. Definition:—A paralysis of a portion of the intestine which suddenly dilates and becomes the receptacle for gas and fecal material.

2. Etiology:—Not known, but probably due to sepsis, trauma, etc.

3. The lesion is probably in the sympathetic nervous system.

4. The treatment consists of gastric lavage, enemata, and enterostomy.

5. Precautions attending a secondary operation.

PROPHYLAXIS AND TREATMENT OF POST-OPERATIVE RETENTION OF URINE.

By Ralph W. Jackson, M. D., of Fall River, Mass.

To meet the different problems presented by an unusual case, involving the rupture, internally, into the rectum, and externally, near the anus, of a sinus from a tubercular hip, the writer has sought, by radiographic study, research of literature, and correspondence with proctologic and orthopedic authorities, information as to frequency, pathology and operative possibilities, of such cases; and with the following conclusions:

1. That intra-anal or rectal rupture of a coxitic sinus, occurs rarely but not with extreme infrequency.

2. That such opening involves probably considerable mixed infection of the joint beyond what would occur if the opening were external.

3. That likewise tubercular infection of the rectum might arise.

4. That intra-anal opening is quite easily treated and much of the mutual risk of infection removed.

5. That intra-rectal opening is in most cases (unless the sinus approaches from low down) too high to turn aside in any way and give an external discharge and consequently the risk must continue.

6. That operating for such purpose is likely to create at once a complete rectal fistula where none existed before, because of the surgical difficulties in the way of securing permanent closure of the internal opening.

7. That it is a very rare and most unfortunate occurrence of such an abscess to point both externally and internally; an external incision should be made, if sure that internal rupture has not occurred; but avoided, if possible, if it has occurred, because of the fistula thereby created.

8. That whatever the etiology, such a fistula is a particularly troublesome one, and the wisdom of trying to better it surgically is fairly debatable ground.

PRELIMINARY REPORT OF TWO CASES.

By Alois B. Graham, A. M., M. D., of Indianapolis, Ind.

(a) Keloidal Tuberculoma; (b) Fibromatous Keloid.

The writer presented a brief preliminary report of two exceedingly rare rectal cases. Both of the cases are of interest in that they emphasize the following points:

1. A benign neoplasm, involving the peri-anal, peri-rectal and surrounding structures, may be the end-result of an inflammation of these structures.

2. An inflammation of these structures is due, in a large proportion of cases, to extension from an anal or rectal inflammation.

3. A benign neoplasm may produce a marked deformity of the structures which it involves. (The writer showed photographs of his two cases).

4. A careful pathologic study is essential for making a correct diagnosis of the neoplasm.

5. A correct diagnosis of the neoplasm can be made, and yet, its etiology remains vague.

A history of the cases was given together with a description of the operations performed. The pathological report shows one case to be Keloidal Tuberculoma; the other, Fibromatous Keloid. The first case insisted upon leaving the hospital and was discharged as improved. The second case,

that of Fibromatous Keloid, is still under the observation of the writer. Hence the preliminary report.

In conclusion, the writer stated his object for reporting these two cases. He is firm in his belief that an anal or rectal inflammation was the origin of the diseased conditions presented by these patients. Both cases, therefore, emphasize the necessity for and the importance of rectal examination. It matters not how slight the ailment may be, a careful inspection of the anus and rectum should be made. If such a rule were followed by every physician and surgeon, such case reports would not be possible.

To Be Concluded in October Issue.

A VERY UNUSUAL CASE OF DIPHTHERETIC INFECTION.

By Julia P. Kelley, M. D., Milwaukee, Wis.

Mrs. C.. Age 23. Developed Laryngeal Diphtheria on Dec. —, 1910. Was given an injection of 6,000 units of Diphtheria Antitoxin which produced a marked reaction followed by considerable improvement. In a short time after the Antitoxin was given, a very pronounced Urticaria developed which was accompanied by a general infection from which the patient seemed to be unable to make improvement.

I first saw this case thirteen weeks after the dose of Antitoxin was given. A careful examination revealed Diphtheria membranes upon both tonsils, pharynx, also in the nasal passages and the uvula had sloughed away entirely.

The temperature was 101 with a pulse of 90, distressing pains in all the joints and complained of feeling sick all over. I immediately injected 10,000 units of Antitoxin. Six days later she received injection of 17,500 units and at the end of another six days, the dose of 17,500 units was repeated. At this time all cultures were positive; after a

lapse of ten days I gave another injection of 10,000 units, making a total of 55,000 units administered within the three weeks.

In a short time after the last injection the cultures were negative and the patient began to convalesce slowly under the use of local washes which were used throughout the treatment.

She remained under my care for about one year and although the voice became brassy or rasping, there was no paralysis of the vocal cords. At the end of the year, she left the city. Since that time I have had no further record of the condition.

Editorial.

THE NEW CODE OF ETHICS OF THE AMERICAN MEDICAL ASSOCIATION.

We largely relinquish our editorial space in this issue to a reproduction of the New Code of Ethics adopted at the recent meeting of the American Medical Association. While it retains intact all the important principles of the "Old Code of Ethics," the amendments, additions thereto, and the "Principles" that have from time to time been added to the original "Percival Code," it will be found to be a decided improvement with its more distinct, definite and specific pronouncements, largely divested of verbosity and unmeaning or glittering and useless generalities. It is a garment for the use and needs of a large number of men, and must to some extent deal in generalities, but it is as distinct and definite as it can well be made. It should be read and studied by every member of the medical profession, and it would be well indeed, if both State and County Medical Societies and Associations would see that it is from time to time placed in the hands of each and every one of its component members.

PRINCIPLES OF MEDICAL ETHICS.

CHAPTER I.—The Duties of Physicians to Their Patients.

THE PHYSICIANS RESPONSIBILITY.

SECTION 1.—A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In

choosing this profession an individual assumes an obligation to conduct himself in accord with his ideals.

SEC. 2.—Patience and delicacy should characterize all the acts of a physician. The confidences concerning individual or domestic life entrusted by a patient to a physician, and the defects of disposition or flaws of character observed in patients during medical attendance should be held as a trust and should never be revealed except when imperatively required by the laws of the state. There are occasions, however, when a physician must determine whether or not his duty to society requires him to take definite action to protect a healthy individual from becoming infected, because the physician has knowledge, obtained through the patient, of a communicable disease to which the healthy individual is about to be exposed. In such a case, the physician should act as he would desire another to act toward one of his own family under like circumstances. Before he determines his course, the physician should know the civil law of his commonwealth concerning privileged communications.

SEC. 3.—A physician should give timely notice of dangerous manifestations of the disease to the friends of the patient. He should neither exaggerate nor minimize the gravity of the patient's condition. He should assure himself that the patient or his friends have such knowledge of the patient's condition as will serve best interests of the patient and the family.

SEC. 4.—A physician is free to choose whom he will serve. He should, however, always respond to any request for his assistance in an emergency or whenever temperate public opinion expects the service. Once having undertaken a case, a physician should not abandon or neglect the patient because the disease is deemed incurable; nor should he withdraw from the case for any reason until a sufficient notice of a desire to be released has been given the patient or his friends to make it possible for them to secure another medical attendant.

CHAPTER II.—The Duties of Physicians to Each Other and to the Profession At Large.

ARTICLE I.—DUTIES TO THE PROFESSION.

SECTION 1.—The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable deposits; to accept their thralldom is to take away all liberty from one's actions and thought." (Nicon, father of Galen.)

SEC. 2.—In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.

SEC. 3.—A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with propriety in his profession and in all the actions of his life." (Hippocrates.)

SEC. 4.—Solicitation of patients by circulars or advertisements, or by personal communications or interviews, not warranted by personal relations, is unprofessional. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, as by furnishing or inspiring newspaper comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs or offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of disease; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

SEC. 5.—It is unprofessional, for personal profit, to hold patents for surgical instruments or medicines; to accept rebates on prescriptions or surgical appliances, or perquisites from attendants who aid in the care of patients.

SEC. 6.—It is unprofessional for a physician to assist unqualified persons to evade legal restrictions governing the practice of medicine; it is equally unethical to prescribe or dispense secret medicines or

other secret remedial agents, or manufacture or promote their use in any way.

SEC. 7.—Physicians should expose without fear or favor, before the proper medical or legal tribunals, corrupt or dishonest conduct of members of the profession. Every physician should aid in safe-guarding the profession against the admission to its ranks of those who are unfit or unqualified because deficient either in moral character or education.

ARTICLE II.—PROFESSIONAL SERVICE OF PHYSICIANS TO EACH OTHER.

SECTION 1.—Experience teaches that it is unwise for a physician to treat members of his own family or himself. Consequently, a physician should always cheerfully and gratuitously respond with his professional services to the call of any physician practicing in his vicinity, or of the immediate family dependents of physicians.

SEC. 2.—When a physician from a distance is called upon to advise another physician or one of his family dependents, and the physician to whom the service is rendered is in easy financial circumstances, a compensation that will at least meet the traveling expenses of the visiting physician should be proffered. When such a service requires an absence from the accustomed field of professional work of the visitor that might reasonably be expected to entail a pecuniary loss, such loss should, in part at least, be provided for in the compensation offered.

SEC. 3.—When a physician or a member of his dependent family is seriously ill, he or his family should elect a physician from among his neighboring colleagues to take charge of the case. Other physicians may be associated in the care of the patient as consultants.

ARTICLE III.—DUTIES OF PHYSICIANS IN CONSULTATION.

SECTION 1.—In serious illness, especially in doubtful or difficult conditions, the physician should request consultation.

SEC. 2.—In every consultation, the benefit to be derived by the patient is of first importance. All the physicians interested in the case should be frank and candid with the patient and his family. There never is occasion for insincerity, rivalry or envy and these should never be permitted between consultants.

SEC. 3.—It is the duty of a physician, particularly in the instance of a consultation, to be punctual in attendance. When, however, the consultant or the physician in charge is unavoidably delayed, the one who first arrives should wait for the other for a reasonable time, after which the consultation should be considered postponed. When the consultant has come from a distance or when for any reason it will be difficult to meet the physician in charge at another time or if the

case is urgent, or if it be the desire of the patient, he may examine the patient, and mail his written opinion, or see that it is delivered under seal, to the physician in charge. Under these conditions, the consultant's conduct must be especially tactful; he must remember that he is framing an opinion without the aid of the physician who has observed the course of the disease.

SEC. 4.—When a patient is sent to one specially skilled in the care of the condition from which he is thought to be suffering, and for any reason it is impracticable for the physician in charge of the case to accompany the patient, the physician in charge should send to the consultant by mail, or in the care of the patient under seal, a history of the case, together with the physician's opinion and an outline of the treatment, or so much of this as may possibly be of service to the consultant; and as soon as possible after the case has been seen and studied, the consultant should address the physician in charge and advise him of the results of the consultant's investigation of the case. Both these opinions are confidential and must be so regarded by the consultant and by the physician in charge.

SEC. 5.—After the physicians called in consultation have completed their investigations of the case, they may meet by themselves to discuss conditions and determine the course to be followed in the treatment of the patient. No statement or discussion of the case should take place before the patient or friends, except in the presence of all the physicians attending, or by their common consent; and no opinions or prognostications should be delivered as a result of the deliberations of the consultants, which have not been concurred in by the consultants at their conference.

SEC. 6.—The physician in attendance is in charge of the case and is responsible for the treatment of the patient. Consequently, he may prescribe for the patient at any time and is privileged to vary the mode of treatment outlined and agreed on at a consultation whenever, in his opinion, such a change is warranted. However, at the next consultation, he should state his reasons for departing from the course decided on at the previous conference. When an emergency occurs during the absence of the attending physician, a consultant may provide for the emergency and the subsequent care of the patient until the arrival of the physician in charge, but should do no more than this without the consent of the physician in charge.

SEC. 7.—Should the attending physician and the consultant find it impossible to agree in their views of a case, another consultant should be called to the conference or the first consultant should withdraw. However, since the consultant was employed by the patient in order that his opinion might be obtained, he should be permitted to state

the result of his study of the case to the patient, or his next friend, in the presence of the physician in charge.

SEC. 8.—When a physician has attended a case as a consultant, he should not become the attendant of the patient during the illness except with the consent of the physician who was in charge at the time of the consultation.

ARTICLE IV.—DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

SECTION 1.—The physician, in his intercourse with a patient under the care of another physician should observe the strictest caution and reserve; should give no disingenuous hints relative to the nature and treatment of the patient's disorder; nor should the course of conduct of the physician, directly or indirectly, tend to diminish the trust reposed in the attending physician.

SEC. 2.—A physician should avoid making social calls on those who are under the professional care of other physicians without the knowledge and consent of the attendant. Should such a friendly visit be made, there should be no inquiry relative to the nature of the disease or comment upon the treatment of the case, but the conversation should be on subjects other than the physical condition of the patient.

SEC. 3.—A physician should never take charge of or prescribe for a patient who is under the care of another physician, except in an emergency, until after the other physician has relinquished the case or has been properly dismissed.

SEC. 4.—When a physician does succeed another physician in the charge of a case, he should not make comments on or insinuations regarding the practice of the one who preceded him. Such comments or insinuations tend to lower the esteem of the patient for the medical profession and so react against the critic.

SEC. 5.—When a physician is called in an emergency and finds that he has been sent for because the family attendant is not at hand, or when a physician is asked to see another physician's patient because of an aggravation of the disease, he should provide only for the patient's immediate need and should withdraw from the case on the arrival of the family physician after he has reported the condition found and the treatment administered.

SEC. 6.—When several physicians have been summoned in a case of sudden illness or of accident, the first to arrive should be considered the physician in charge. However, as soon as the exigencies of the case permit, or on the arrival of the acknowledged family attendant or the physician the patient desires to serve him, the first physician should withdraw in favor of chosen attendant; should the patient or his family wish someone other than the physician known to be the family physician to take charge of the case the patient should advise

the family physician of his desires. When, because of sudden illness or accident, a patient is taken to a hospital, the patient should be returned to the care of his known family physician as soon as the condition of the patient and the circumstances of the case warrant this transfer.

SEC. 7.—When a physician is requested by a colleague to care for a patient during his temporary absence, or when, because of an emergency, he is asked to see a patient of a colleague, the physician should treat the patient in the same manner and with the same delicacy as he would have his own patients cared for under similar circumstances. The patient should be returned to the care of the attending physician as soon as possible.

SEC. 8.—When a physician is called to the patient of another physician during the enforced absence of that physician, the patient should be relinquished on the return of the latter.

SEC. 9.—When a physician attends a woman in labor in the absence of another who has been engaged to attend, such physician should resign the patient to the one first engaged, upon his arrival; the physician is entitled to compensation for the professional services he may have rendered.

ARTICLE V.—DIFFERENCE BETWEEN PHYSICIANS.

SECTION 1.—Whenever there arises between physicians a grave difference of opinion which cannot be promptly adjusted, the dispute should be referred for arbitration to a committee of impartial physicians, preferably the Board of Censors of a component county society of the American Medical Association.

ARTICLE VI.—COMPENSATION.

SECTION 1.—The poverty of a patient, the mutual professional obligation of physicians and certain public duties should command the gratuitous services of a physician. A physician should also give his services to a selected group of eleemosynary institutions, but institutions endowed by the public, or by the rich, or by societies, and organizations for mutual benefit, or for accident, sickness and life insurance or for analogous purposes should be accorded no such privileges.

SEC. 2.—It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient or which interfere with reasonable competition among the physicians of a community. To do this is detrimental to the public and to the individual physician, and lowers the dignity of the profession.

SEC. 3.—It is detrimental to the public good and degrading to the

profession, and therefore unprofessional, to give or receive a commission or to divide a fee for medical advice or surgical treatment, unless the patient or his next friend is fully informed as to the terms of the transaction. The patient should be made to realize that a proper fee should be paid the family physician for the service he renders in determining the surgical or medical treatment suited to the condition, and in advising concerning those best qualified to render any special service that may be required by the patient.

CHAPTER III.—The Duties of the Profession to the Public.

SECTION 1.—Physicians, as good citizens and because their professional training specially qualifies them to render this service, should give advice concerning the public health of the community. They should bear their full part in enforcing its laws and sustaining the institutions that advance the interests of humanity. They should co-operate especially with the proper authorities in the administration of sanitary laws and regulations. They should be ready to counsel the public on subjects relating to sanitary police, public hygiene and legal medicine.

SEC. 2.—Physicians, especially those engaged in public health work, should enlighten the public regarding quarantine regulations; on the location, arrangement and dietaries of hospitals, asylums, schools, prisons and similar institutions; and concerning measures for the prevention of epidemic and contagious diseases. When an epidemic prevails, a physician must continue his labors for the alleviation of the suffering people, without regard to the risk of his own health or life or to financial return. At all times, it is the duty of the physician to notify the properly constituted public health authorities of every case of communicable disease under his care, in accordance with the laws, rules and regulations of the health authorities of the locality in which the patient is.

SEC. 3.—Physicians should warn the public against the devices practiced and the false pretensions made by charlatans which may cause injury to health and loss of life.

SEC. 4.—By legitimate patronage, physicians should recognize and promote the profession of pharmacy; but any pharmacist, unless he be qualified as a physician, who assumes to prescribe for the sick, should be denied such countenance and support. Moreover, whenever a druggist or pharmacist dispenses deteriorated or adulterated drugs, or substitutes one remedy for another designed in a prescription, he thereby forfeits all claims to the favorable consideration of the public and physicians.

CONCLUSION.

While the foregoing statements express in a general way the

duty of the physician to his patients, to other members of the profession and to the profession at large, as well as to the public, it is not to be supposed that they cover the whole field of medical ethics, or that the physician is not under many duties and obligations besides these herein set forth. In a word, it is incumbent on the physician that under all conditions, his bearing towards patient, the public, and fellow practitioner should be characterized by a gentlemanly deportment and that he constantly should behave toward others as he desires them to deal with him. Finally, these principles are primarily for the good of the public, and their enforcement should be conducted in such a manner as shall deserve and receive the endorsement of the community.—(Adopted at the 1912 meeting).

THE ICE BAG IN APPENDICITIS:—In a most interesting article by A. M. Fauntleroy, Surgeon of the United States Navy, Medical Record, Aug. 3, 1912, the fact is brought out, basing the same upon a large number of cases of appendicitis operated, that the ice bag is positively harmful in this condition. In 50 per cent. of the cases operated, where the ice bag was used, the condition seemed to indicate that there was a noticeable lack of effort on the part of nature to wall off, from the rest of the abdominal cavity, the appendix, which was frequently very much congested, gangrenous or perforated. He also observed that in the ice bag cases there was a surprisingly low white cell count when one took into consideration the condition found in the abdomen at the time of the operation. From 8,000 to 11,000 white cells was the rule in these ice bag cases when one would be justified in saying that the pathological condition warranted a constitutional reaction of from 20,000 to 30,000 leucocytes, or even higher.

On the other hand, in those cases in which the hot water bag or morphine had been used prior to operation (the ice bag not being used at all), the white count corresponded to what one would expect. Dr. Fauntleroy advances from his findings the logic that while the ice bag causes numbness, practically the same as in the condition of frost-bitten ear or toe, it also decreases hyperemia, leucocytosis and stasis in the part to which it is applied. That heat is the direct antithesis of cold in encouraging favorable physiological action in inflammatory processes, whether superficial or peritoneal, seems to be from his report most logically and conclusively proven.

In applying heat whether it be for peritoneal or inflammatory conditions of a more superficial character, the most rational method is to use that which is not only sanitary, but, for the comfort of the patient does not require frequent changes. In this respect, antiphlogistine, on account of its heat retentive properties, its cleanliness, and its ease of application, should appeal to the professional mind. That

antiphlogistine has proven of great therapeutic value as a thermic agent is best indicated by its extensive professional employment and its many advantages over the hot water bottle and other methods of application of heat is readily discernible.

DO YOU BELIEVE THE WORD OF SEVERAL THOUSAND PHYSICIANS?— If several thousand doctors told you that in PASADYNE, a distinctive tincture of *passiflora Incarnata*, they had found a most efficient substitute for chloral and the bromides, and that they had given up these latter drugs, would you believe them? While several thousand doctors will never tell you this, yet they could if an opportunity ever presented itself, for it is a fact. Gradually, during the last thirty-eight years, physicians, who have investigated the merits of PASADYNE (Daniel's Concentrated Tincture of *Passiflora Incarnata*), have become users of it in preference to chloral and the bromides, for they have found it to possess just as much therapeutic activity as the drugs named and to be free from their dangerous after-effects. The possibility of habit-formation does not attach to the use of PASADYNE, nor is it depressing. It is the ideal sedative and soporific. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta, Ga.

CORRECT TREATMENT OF MIGRAINE:—The treatment of migraine, to be correct, must be adjusted on the basis of the element of causation. Dr. J. J. Caldwell of Baltimore, Md., in "Medical Progress," writes as follows: "Constipation, if present, should be treated by proper dietary and regular habits, but purgatives should be avoided. Only mild laxatives should be employed, and they should be abandoned when diet regulates the bowels, as proper diet will do. During the premonitory stage we can generally abort or rather prevent the development of an attack by the administration of two antikamnia tablets. They should be given as soon as the first symptoms of the attack are manifest. If then, all symptoms are not speedily dissipated, another dose should be given in three-quarters of an hour or an hour. This means is a most effectual one to abort an attack, and when the attack is developed, antikamnia tablets will relieve the pain usually in about forty minutes."

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DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of “just as good” than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No “Just as Good” allowed.

THE POWER TO RECUPERATE resident in the tissues, may be markedly augmented by Cord. Ext. Ol. Morrhuæ Compound (Hagee), and with many physicians it is a routine practice to employ it for this purpose.

The usefulness of Cord. Ext. Ol. Morrhuæ Comp. (Hagee) as a reconstructive lies in the nutritious elements contained, which when fed to impaired tissues build up and strengthen them. Each fluid ounce of the Cordial represents the extract obtainable from one-third fluid ounce of cod liver oil (the fatty portion being eliminated), 6 grains calcium hypophosphite, 3 grains sodium hypophosphite with glycerine and aromatics. It is free from grease and the taste of fish.

MILITARY APPOINTMENT:—President Taft, with the confirmation of the Senate, on July 13th commissioned William Edward Fitch, M.D., (Editor of Pediatrics, New York City) to be a first Lieutenant in the Medical Reserve Corps of the Army of the United States, with rank dating from July 3rd, 1912.

Selections

CARDIAC THERAPEUTICS:—The March number of the *Medical Review of Reviews* contains a series of “don’ts” in cardiac therapeutics. Don’t allow a patient with an un-

compensated valve lesion to be out of bed. Don't let a child or young person with chronic valve disease get out of bed until compensation has returned to the heart, and circulatory equilibrium has been maintained for at least one month. Don't keep elderly patients with myocardial degeneration in bed longer than is absolutely necessary to secure adequate compensation. Don't give children digitalis unless there is absolute indication for its use. Don't ever give digitalis to old people as a routine measure. Don't give digitalis to a patient of fatty heart, or with any form of pronounced chronic myocardial degeneration. Don't persist in giving digitalis in chronic valvular disease if the symptoms are rendered worse by its use. Don't start in with digitalis in mitral stenosis. Don't give digitalis, strophanthus or any other cardiac stimulant unless rest in bed fails to induce a return of compensation. Don't forget that digitalis, strophanthus, strychnin and caffeine are the most effective heart stimulants and that nearly everything in the line of heart stimulation can be accomplished by chemicals if they are correctly exhibited. Don't use nitroglycerine in cardio-vascular disease to reduce blood pressure if the kidneys are much sclerosed, but do not fail to use it freely if coronary sclerosis is present. Don't forget that individual susceptibility to strychnin varies greatly and that it is not generally safe to begin with more than 1-60 grain every four hours; and that the maximum dose in diseases of the heart is generally not more than 1-30 grain every four hours. Don't prescribe passive movements as part of the treatment without watching very carefully to see that they are not given too vigorously. Don't expect to get compensation in a bad case too soon; be satisfied if the patient shows signs of slight improvement immediately; permanent improvement must be slow if it comes at all; and attempts to hurry it unduly may prematurely exhaust the heart.—*Cleveland Medical Journal*.

SUNSTROKES—These stifling days of mid-summer heat turn the professional mind to thoughts of sunstroke. It is a curious, and not very creditable, fact that the standard text-books on therapeutics and practice still repeat advice as to the treatment of sunstroke, which was proven absolutely incorrect and disastrous almost twenty years ago. The reason for this probably is that the authors of these volumes, being only visiting staff officers to hospitals, never see cases of true insolation and never have an opportunity of directing the treatment. Treated according to their directions the cases are mostly in the morgue before the hour for the visiting staff the next day. Baruch, in the current volume of the *International Clinics*, gives quotations from seven standard works, all of which order that the patient should be "placed in a bath of ice water" or "packed in ice"—and he further discovers that the hospitals which carry out these orders have a mortality of 38 per cent. in their sunstroke cases. One has only to see a sunstroke case treated in this manner to see the utter fallacy of it. The whole body becomes cyanotic, the pulse becomes shockingly irregular both as to rhythm and volume, the convulsions if present are not controlled but aggravated, and we may well believe that the temperature of the internal cavities and organs rises.

Baruch well says, "We have here the same conditions to deal with as in typhoid fever, with the difference only that here we stand in the presence of dangerous heart failure in the inception of the case, whereas in typhoid fever this lethal condition occurs after the expiration of days of labor on the part of the heart to accommodate itself to the depreciated vasomotor action. This view affords us a key to the proper management of sunstroke, a management the correctness of which is established by the overwhelming superiority of hydropathic procedures directed to remedying the vasomotor failure over hydropathic measures directed to reducing temperature, as has long and fatally been the practice."

Baruch, after having properly condemned the present teaching, advises the following procedure: The patient is snugly wrapped in a damp sheet. Turn him over "so that the back may receive dashes from a height—the higher, the greater the mechanical stimulus. Successive parts of the back are douched with a pitcher from a height of six feet or more, however, passing beyond the knees, the water temperature ranging from 70 degrees F. to 60 degrees F., as required. The wet sheet is now rubbed with the flat hands by two or more attendants until it feels warm. Now a smaller stream of ice water is poured with force upon one portion of the back; this is rubbed and slapped with the hands until it warms up before another it treated. The entire posterior part of the body having been douched, rubbed and again douched until the hands feel little or no warmth, the patient is turned over and the anterior portion is treated in similar manner, first by water at ordinary temperature, then with ice water in smaller quantities, followed by vigorous rubbing and slapping. The patient is then dried and wrapped in blankets, with hot water bottles to the extremities."

Dr. Baruch's method is a good one, and, of course, infinitely superior to the ordinary text-book method, than which nothing could be worse.

We would like, however, to call attention to a method introduced into the Cincinnati Hospital about eighteen years ago which, we believe, is superior to that advised by Dr. Baruch. The "sunstroke room" was prepared for the reception of patients immediately upon the appearance of "sunstroke weather." This room had a concrete floor, was well lighted and ventilated, and was furnished with a large tank of ice water the bottom of which was about seven feet above the floor of the room. A hose leading from the ice water tank terminated in a "rose" garden sprinkler. A metal stretcher completed the equipment. Immediately upon making the diagnosis the patient was stripped and placed upon the stretcher. The garden hose arrangement

was then turned upon him, and he was whipped from head to foot with the tiny streams of ice water. The effect was invariably magical. The body and limbs, which were always of a waxy pallor, did not become cyanotic as they would have become had the patient been packed in ice, but presently began to glow with the blush of sunburn or other hyperemia producing agency. Evidently an abundance of blood was flowing through the skin, and, being cooled by the moderate streams of ice water that flowed at intervals over the surface, was returning to the deeper parts of the body reducing the temperature of all parts. At the same time that this was being done an attendant was repeatedly washing out the bowels with cold water; and it is worthy of note here that the contents of the bowels in all cases were of the most fetid character, offering strong suggestion (when the habits and immediately preceding conduct of the patient were taken into consideration) that, in some cases, if not in all, sunstroke—that is, true insolation—is not due to atmospheric heat *per se*, but to an intestinal autointoxication. During the period of the writer's observation there were no deaths from sunstroke when the above procedure was carried out.

Fortunately for the present and future citizens of Cincinnati the general plans of the new Cincinnati General Hospital carry an elaborately equipped department for the proper hydrotherapeutic management of these emergency cases of the midsummer heats.—*Cincinnati Lancet Clinic*.

THE MAINTENANCE OF A MICROBE:—A country school-teacher was cashing her monthly check at the bank. The teller apologized for the filthy condition of the bills, saying, "I hope you're not afraid of microbes."

"Not a bit of it," the schoolmarm replied. "I'm sure no microbe could live on my salary!"—*September Lippincott's*.

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THE FORCEPS OPERATION.*

BY DR. GEORGE C. TRAWICK, NASHVILLE, TENN.

The operation of forceps in obstetrics is one which is more or less an emergency operation, and, owing to the fact that time must be saved and the patient hastily delivered, this work is most frequently done outside of the hospital. The operation has a wide field of usefulness, and when properly performed, will ever be a source of the greatest relief to the mother, and a means of saving the lives of many children. Other obstetric maneuvers such as

*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, August 26th, 1912.

version, craniotomy pubiotomy, Cæsarean Section, etc., will have to be performed when their indications arise, and it is frequently difficult to determine which procedure should be used, yet the operation of forceps is undoubtedly the most frequently done of all other obstetric operations combined. Hence, it is imperative that we have a clear understanding of its indications and the methods of operating.

A common indication for forceps is delay of advance of the head over a certain period of time; as, for example, two hours delay after full dilatation when the head is above the perineum, or one hour when the head is on the perineum. This is, of course, modified to some extent by the condition of the mother and child, but as an arbitrary rule, is a fairly accurate one. However, with more experience in the care of labor, and with better power in estimating the proper duration of a particular labor, forceps may even be correctly indicated before the lapse of the one or the two hours mentioned, because of failing pains. If the head rests upon a rigid perineum and good pains are beginning to diminish and weaken one's result, it may be advisable to apply forceps sooner; while if a prolonged, complete dilatation with weak pains is followed by more vigorous contractions and the patient in good condition, we may delay the use of the instrument. We are most apt to have a delay of the head on the perineum in occipito-posterior cases.

Should the life of the *foetus* become endangered from a prolonged first stage of labor, it should be delivered at once when the cervix becomes fully dilated with engagement. It is only very seldom that we can know when such is the case, as we must place our sole reliance on the foetal heart. If the heart beat either increases or diminishes steadily, evidence is thereby furnished of disturbance in its circulation, which means peril to the child. Maternal exhaustion and foetal asphyxia in its various forms constitute the commonest every-day indications for forceps and as a rule are readily recognized. Protracted labor without

evidence of obstruction, and simple inertia with no mechanical hindrance is seen daily and relieved with the instrument.

Accidental hemorrhage, either concealed or open, is unfortunately, not usually recognized until the patient is moribund. A quick delivery is imperative. If there is sufficient dilatation, forceps should be immediately applied and the fœtus extracted. Should there be absence of dilatation, Cæsarean Section is the choice.

Placenta prævia usually is delivered by forceps. While it is much to be desired that this be treated surgically, in many instances, yet it is nevertheless true that it is frequently impossible to transport these patients to a hospital. In cases of placenta prævia with rigid cervix and small vagina, as is seen particularly in primiparæ, the operation of choice is section. The bleeding, however, in the majority of cases is such as to not only soften, and thus make dilatable the cervix, but also to exsanguinate the patient to a point making hazardous her removal from her bed, and demanding the immediate control of the hemorrhage.

The use of the elastic bag and artificial rupture of the membranes are especially valuable. The bag must be introduced with the aid of a speculum, the cervix being dilated sufficiently, if necessary by means of a cervical dilator; Goodell's is good, and a forceps with a suitable pelvic curve grasping the bag, this is introduced into the uterus. The foetal membranes being ruptured through the introduction of the bag, the bag should then be distended with normal saline solution. Should the placenta be central, the thinnest portion of it should be selected for the introduction of the bag. A weight of two or three pounds should be attached to the bag. This method gives admirable results in controlling hæmorrhage and securing dilatation. The bag within the uterus not only acts as a tampon against the bleeding placenta, but also, with the assistance of the weight applied, gains dilatation sufficiently to apply the forceps.

Should the head not descend below the pelvic inlet it would be better to perform a podalic version and manual extraction of the child. The descent of the head, however, pushing the hydrostatic dilator in advance will usually secure sufficient dilatation for the application of the forceps.

In cases of puerperal eclampsia, the eclamptic seizure will often dilate the cervix to a degree rendering forceps application possible. With a hard, rigid cervix, and many seizures present, Cæsarean Section should be insisted upon in preference to other operative methods. We can frequently control the convulsions during the preparations for laparotomy, with great satisfaction, and undoubtedly offer to the mother the greatest hope for life to both herself and child by submitting her to surgical procedures. However, the great majority of these cases will be capable of relief by means of forceps extraction, either high or low.

While there are many indications for the use of the forceps, it is impossible for me to take up the discussion of all in a paper to be read in the limited time allotted me. Many of the indications are easily interpreted by the attendant. One of the most difficult problems which confronts us is when we meet a disproportion between the foetal head and the maternal pelvis, and when the question of its management requires profound thought and judgment as to the best method to be pursued.

It is easy to determine extreme or even moderate degrees of pelvic contraction. The pelvimeter should be made the routine of all examinations on pregnant women, particularly primiparæ, and by its means we at once detect any marked deformity. Yet the results of pelvimetry are not always as reliable as one might imagine, and one will often worry unnecessarily over small measurements obtained, and afterwards deliver his patient spontaneously, or with an easy forceps extraction. I have seen primiparous patients where it seemed impossible for a baby to be delivered at all except with a Cæsarean operation, relieve herself of the foetus in a perfectly natural way, without assistance.

Nature is often kinder to these women than the attendant would be. I recently saw a primipara with a three inch conjugate, face presentation—chin posterior, on whom I insisted she must submit to a Cæsarean Section. It seemed an utter impossibility to me that she could be delivered in any other way. Her pains soon gained a tremendous force, the chin rotated, and in a short time she presented the astonished family and doctor with a perfectly healthy six-and-one-half pound boy. Her uterus had overcome the resistance of a narrow pelvis and the baby was born. I had overlooked the laxity of the pelvic joints, which undoubtedly played an important part in this case, and which is impossible of determining in most cases.

In 972 contracted pelves occurring in the Lying-in-Hospital of New York, labor terminated spontaneously in 645—66 3-10 percent. In a series of 44 contracted pelves reported by Edgar, 31 terminated normally—about 70 percent. Williams figures are 71 percent. In our practice the percentage of spontaneous births is smaller, for the patients will not suffer long enough to allow sufficient moulding of the head. The problem, then, whether to assist nature or not, in the management of women with pelves under the normal measurements, is one most difficult to decide.

While it is not the purport of this paper to take up side-lines in this discussion, yet I will speak of one procedure which may be tried to aid nature to perform the process of labor unaided. One patient of mine who weighs nearly 300 pounds, has been delivered of three still born babies, the last of which weighed 16 pounds. Dr. Paul De Witt, of this Academy, can vouch for the weight of the mother if not for the babies. Her pelvis is very large, much above the average. I believe that with a limited diet during her next pregnancy, which she declares will never again occur, a diet strictly formulated from the onset of pregnancy to the completion of the seventh month, then by inducing labor and delivering by forceps, if necessary, that she can be delivered of a living child. I shall also insist on a tight-

ly fitting corset or bandage which will force the uterus back against the spinal column to a degree short of discomfort, and insist on long walks during the last few weeks of her expected pregnancy so as to secure engagement of the head, and a possible easy delivery. This case may be considered one of justo-major. I should advise the management of justo-minor in an identical manner, when it is not an absolute indication for section. It is well to *insist* that these patients take long walks toward the end of their pregnancies, for if they cannot walk without discomfort, it is a good sign, showing relaxed joints and more room, while those who can walk miles without pain usually have more or less fixed joints.

Another procedure to secure normal labors is to try to tone up the uterus to secure strong contractions. Uterine inertia is responsible for the vast majority of instrumental deliveries. Our measures are often unsuccessful in this endeavor, but occasionally the pains are intensified by giving strychnia, gr. 1-60 to gr. 1-30 t.i.d., during the last month of pregnancy associated with quinine gr. 2 or 3 t.i.d. during the last two weeks.

We should not leave too much to nature. Pelvimetry should be a routine, but the measurement will not tell us the whole story. The external measurements may be normal, yet the examination under the anæsthetic may show a jutting promontory, or a close sub-pelvic angle. One of the most consoling observations in any case with or without pelvic contractions, is to find the head dipping into the brim before the onset of labor. Yet, even with these good signs, we must remember that obstruction can take place in the cavity, or even the outlet of the pelvis. One should always, in making pelvic examinations, attempt to ascertain any bulging into the cavity, any approximation of the ischial spines, or any jutting forward or ankylosis of the coccyx.

When the head is rising high above the brim of the pelvis

during the last two weeks of pregnancy one may scent danger. It may mean a contraction of the pelvic brim, a poorly flexed head, a posterior position, or a head too large or too hard to descend. If under an anæsthetic the head cannot be forced into the brim, we must look for trouble. Instrumentation, or section may be prevented by, first, the force of the uterine contractions, and second, by the compressibility of the head. With strong pains in labor, and good moulding, the head may be forced through sufficiently to engage the forceps. If the head does not engage by full dilatation, Cæsarean Section should be done.

In *marked* degrees of pelvic contraction the forceps should not be relied upon at all, but the patient allowed to go to term and a section done. Hellier and Williams place the absolute indication for this procedure, a pelvis of 7 cm. true conjugate (about $2\frac{3}{4}$ in). The relative indication for the operation has no exact limit as to the size of the pelvis, because this limit is only reached after the forceps has been applied to the unengaged head without success, or to one which is dipping into the brim of the pelvis after a full test of labor and high forceps, without advance, and where a contracted uterus contraindicates version.

The practice of selecting a day near term or early in labor in primiparæ to do a Cæsarean Section in "Meddlesome midwifery." There are too many instances where the child was either delivered spontaneously or by an easy forceps operation to justify such work, unless the indications for section were absolute.

I certainly believe in giving nature a chance in all moderate cases of pelvic contractions, and only do an elective Cæsarean operation when one is positive the birth of a living child through the pelvis is impossible.

There are *many* high forceps operations in slight or moderate degrees of pelvic deformity which terminate successfully, and this method of delivery should always be attempted, carefully using moderate tractions. Prolonged high forceps operations, pulling with all ones might for

an hour or more is to be condemned. In this instance there is a great danger to the mother as well as a practical certainty of the death of the child. In choosing a high forceps or a version, the measures most often selected for slight or moderate degrees of pelvic deformity, the best judgment in estimating the relative size of the foetal head and the maternal pelvis is required; the greatest skill in technique of the operations must be employed, and experience is necessary for the successful outcome of the operation. If the forceps fail, and if Cæsarean Section is impossible on account of the condition of the patient, pubiotomy must be considered.

Symphysiotomy is an operation of the past. Craniotomy on the living child is a doubtful procedure.

The operation of forceps is usually classified as either high, median or low, that is when the head is above the pelvic inlet, in the cavity of the pelvis or at the outlet. For practical purposes we need only consider the high or the low operation. When the head is high there are two requisites before forceps should be attempted: 1st, the cervix should be fully dilated; 2nd, the head should be fixed either at or in the brim. If the cervix is not fully dilated, there will be grave danger of uterine rupture or the possibility of a cervical tear which may extend into the broad ligaments, and forceps should never be attempted under any circumstances unless dilatation is complete. If the head is not fixed, forceps cannot be successfully applied; as for example, in the condition known as floating head. In this instance when one blade is applied, the head moves before the other can be put in place, so that no successful application can be made and the operation is useless. Those cases in which a quick delivery is necessary with a floating head had much better be treated by version, for if the head is floating, the uterus is usually relaxed so that version can be done, or the operation may be postponed until the head becomes fixed at the pelvic brim. If this postponement seems intolerable to the patient, we have recourse to Cæsar-

ean Section, or pubiotomy, and I certainly would insist on the Cæsarean operation as the one of choice.

When the high operation is to be done, it is well for the operator to first examine all parts of his instrument, to be sure that none is missing. After all is ready the blades should be locked before introduction and the proper one selected for the first manipulation. I have seen experienced men, who failed in this simple precaution, insert the wrong blade first. The instrument I prefer is the Tarnier axis traction. The handle of the left blade is taken between the thumb and finger of the left hand, while the right hand is passed into the vagina until it strikes the bulging curve of the foetal head. The forceps is then passed along the palm of the right hand, the thumb being extended along the shank of the forceps. The handle of the forceps is held almost perpendicularly while the points of the blade are dropped down along the floor of the vagina, until the point impinges against the head. The handle is kept during all this time in the midline of the patient's body, and not deviated to one side or the other. The advance of the forceps is obtained from pressure of the external thumb upon the shoulder or shank of the forceps, in this way propelling it alongside the head. The forceps handle being held all the while in midline, the point of the blade is abducted so as to bring the point of the blade away from the midline of the child's head. The point of the blade driven by the pressure of the thumb upon the shank may thus be passed up along the side of the head so as to go almost into position. The third movement of the blade brings the point upward into position over the side of the head while the handle is dropped downward toward the perineum. The forceps thus rotates around a fixed point which is near the lower border of the symphysis at the entrance of the vagina. The application is done in three movements. The first position up against the head, the second abduction of the point of the blade and advance alongside the head, and the third abduction of the blade by rotation of the handle which is at

the same time lowered toward the perineum. This method of application was taught me by Dr. Markoe, of New York Lying-in-Hospital, and is used by Winter in Germany, and others. It is known as the "pelvic application," but may, however be as well adapted to the cephalic adaptation. It is needless to say that an absolute necessity to the proper cephalic application of the forceps is a true knowledge of the position of the foetal head. It is useful for this purpose that an abdominal and vaginal examination be made early in labor, so that the position of the presentation may be determined before it is obscured by a caput succedaneum. The application of the second blade is made in a similar manner, an assistant holding the blade just applied and the right hand following the left hand in its introduction. The last blade is the more difficult of the two to place. The two blades are then rotated into place and a lock secured. If a lock is difficult or impossible to secure, the blades should be removed and reapplied. The hand should be passed in to see that the cervix or cord is not grasped before tractions are begun. The forceps being in position the traction bar is attached. Traction should be made of one minutes duration, with a rest of one minute, the operator sitting, making the pulls with the right hand and following the course of the head with the left. Should the blades slip, it is probable an improper adjustment has been made and they will have to be reapplied. As the head descends into the pelvis, rotation takes place, the forceps assuming a position nearly inverted. They should then be removed and either a low forceps applied or the same instrument may be used. Before the head is delivered the blades should be taken off, after the head is in control of the hands, and by pressure between the coccyx and anus the head can be carefully extended and delivered, thus avoiding many dangers of laceration. Do not remove the forceps until the head can be controlled, but make tractions till the parietal bosses are engaging under the symphysis. When the head is thus controlled by the hand through the perineum, the other

should be placed over the occiput so as to control any sudden advance which may occur if the patient is imperfectly under the anæsthetic.

In this way the possibility of perineal tear is much lessened, and there should be no more chance of perineal lacerations with forceps than there is without forceps. In fact, a great many operators, skilled in the use of the forceps, claim that there is less danger of tears with forceps than in the ordinary cases.

It is unnecessary to go into detail as to the use of the low forceps. The same general principles apply. Do not forget that the axis-traction instrument may be of great service in cases where the head has even reached the floor of the pelvis. The secret of successful forceps operations depend, not in the muscles of an ox or the brawn of a bull, but in a knowledge of the proper direction of traction in the pelvic curve, a good instrument, and gentleness and cleanliness.

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Concluded From September Issue.

SOME PRACTICAL POINTS GLEANED FROM THE OBSERVATION OF
A PROCTOLOGIST.

By Samuel T. Earle, M. D., of Baltimore, Md.

Dr. Earle reported a case of Primary tubercular ulceration of the right buttocks, which was not connected with the rectum by a fistulous tract. In this respect it differed from the one reported by him, in his work, on "Diseases of the Anus, Rectum and Sigmoid," Figure 62, page 201. It was excised by the thermo-cautery knife, after which, it healed very promptly.

Dr. Earle also reported a very aggravated case of pruri-

tus ani, which had resisted local applications, autogenous vaccines and treatment by the X-Ray. Under local anesthesia he found an ulcer over the posterior commissure just above the internal sphincter, which connected on each side with numerous submucous and subcutaneous superficial fistulae which enveloped the entire anal margin and connected with each crypt of Morgagni. The ulcer was incised, the scar tissue, at its base removed, and, the fistulous tracts were all opened up. There was only an occasional twinge of itching following the operation, and he made a speedy recovery.

THE SUBNORMAL COLONIC FUNCTION AS A DIATHESIS.

By J. Coles Brick, M. D., of Philadelphia, Pa.

The writer was led to investigate the causes of a persistent case of constipation which had existed since childhood, and which was of an average duration of 7 days, in a young woman of 18 who was in seemingly good health, but whose father having had the same condition and who had subsequently developed a case of chronic arthritis deformans. The young woman had been treated by many doctors and by many methods, but all without any more than temporary success.

Resort was finally made to X-Ray examination after giving a bismuth meal. The plates showed that at two points, viz: the cecum and the rectum, the colonic contents remained for three days, and operative measures were decided on. No abnormality was found except an old and thickened appendix, containing 3 concretions, and the tip being adherent to the ovary. As there were some moderate sized hemorrhoids present, these were removed at the same time as the appendix, and the patient made a good recovery. The X-Ray plate showed a very moderate degree of visceroptosis, and a "Storm" belt was ordered. The patient has had a regular bowel movement daily, with the use of a mild laxative which it had been impossible to produce at any previous time.

Examination of the X-Ray plates, showed a bilateral calcification of the costal cartilages, which the writer thought was an early symptom of arthritis deformans, and after discussing the various theories of the cause of the disease, accepts the theory that it is a toxic trophoneurosis affecting the cerebro-spinal nerves, with its infectious focus in the gastro-intestinal canal.

The essayist believes that all cases of persistent constipation should be examined by all the means at our command, and finally, not only by the administration of bismuth by the mouth, but by injection, with X-Ray examination—conditions requiring operative interference will frequently be found by this means, and corrected surgically.

Arthritis deformans is a most ancient disease, and evidences of many cases are shown to have existed before the pyramids were built, and that it is not only possible but probable that the infection comes from the intestinal tract, and that if the cause is removed early before the destructive changes have occurred these cases can be cured, and even the advanced cases have their progress arrested.

THE THREE-STEP-OPERATION IN TUMORS OF THE SIGMOID AND COLON.

By James P. Tuttle, A. M., M. D., of New York City, N. Y.

Dr. Tuttle described the operation as follows: Incision is made in the outer border of the left rectus. Tumor is brought out on the abdominal wall. Peritoneal layers of the meso-sigmoid are incised well above and below the tumor, and stripped back so as to expose the blood-vessels, fat, and glands, which may be in the meso-sigmoid; the latter are stripped toward the intestine until the blood-vessels are bare and the supply to the bowel is easily visible. The sigmoidal artery is tied in two places and cut between and the proximal stump dropped back into the abdominal cavity. The raw surface in the abdomen is covered over by suturing the two peritoneal layers of the meso-sigmoid together over the arterial stump. The two legs of the sig-

moid are sewed together laterally to make a spur, after the method of Bodine. The peritoneum is sewed around the bowel; the muscles drawn together; the skin wound closed, attaching it to the bowel. In forty-eight hours the tumor is excised by a V-shaped incision. Two days later, the spur is cut away by pressure-forceps. After this is completed a long rectal bougie is passed up through the bowel beyond the artificial anus, in order to press the spur back and obtain a large caliber at the site of the resection. When the wound made by the pressure-forceps is healed, the artificial anus is closed by the extra-peritoneal method of the author.

THE X-RAYS AS AN AID IN MAKING DIAGNOSIS OF CONDITIONS
IN THE RECTUM AND OTHER PORTIONS OF THE
LARGE INTESTINE.

By J. R. Pennington, M. D., of Chicago, Ill.

He stated that while the rectum is easily inspected by various specula, and the sigmoid is less readily accessible by the use of sigmoidoscopes, such as the one with insufflation devised by him, the colon is inaccessible and its exact position difficult to ascertain. Very often it is also difficult to determine and locate pathologic conditions in the large intestines.

Until recently, the means of diagnosis have been limited to those used in other portions of the alimentary canal, viz: Inspection after dilatation of the bowel with air or water, Palpation, Percussion, and Trans-illumination. All of these are open to the objection that they are uncertain.

The writer observed in the latter part of 1899, that by introducing some agent into the large bowel which would cast a shadow, the X-Rays may become useful in making a diagnosis of conditions in the twin cavities. It is only recently, however, that such procedures have become of practical value.

A bismuth meal is useful in disease of the stomach or duodenum, the agent being suspended in milk, acacia water, thick soup or some similar vehicle.

But for the large bowel, the action of bismuth per os is very slow. One author estimates that it requires from 12 to 15 hours for the bismuth mixture to reach the ileo-cecal valve; about 24 hours to gain the transverse colon, and 36 hours to penetrate to the sigmoid. By the method advocated this is done, so to speak, instantaneously.

Coming now to the technic: The patient's bowels are first cleansed by means of laxatives and injections. He is then placed in the knee-shoulder position, and from 25 to 30 ounces of the mixture used for casting the shadow injected into the large intestine. For this purpose the author uses an ordinary irrigator and a short rectal tip. A long rectal or colonic tube for administering the injection is unnecessary. After the suspension is injected the patient lies on his right side for a few moments so part of the menstruum may pass into the cecum. He is then placed in either dorsal or ventral position on the radiographic table and the picture taken.

Selected Articles

PREVENTIVE MEDICINE—WHAT IT HAS DONE, AND WHAT IT CAN DO IF THE STATE WILL BUT RECOGNIZE ITS OBLIGATION TO THE PUBLIC.*

BY JOSEPH A. WHITE, A.M., M.D., RICHMOND, VA.

When his Satanic Majesty destroyed the Terrestrial Paradise of the Garden of Eden by inoculating Mother Eve with the germ of discontent, he sowed also other germs that have borne fruitful crops of disease, but he covered his seed so well that it has taken the medical profession all the thousands of years that intervened between then and about forty years ago to get upon the trail.

*President's Address before the Tri-State Medical Association of Virginia and the Carolinas, at Raleigh, N. C., February 22-23, 1911.

In Exodus—Chapter XV, verse 26—it is recorded that Moses, the great law giver and physician, said to his people: "If thou wilt hearken to the voice of the Lord, thy God, and will do what is right in His sight, and will give ear to His commandments, and will keep all His statutes, I will put none of those diseases upon thee which I have brought upon the Egyptians."

Here Moses foreshadowed Modern Preventive Medicine, in as much as he promised immunity from the infectious diseases then prevalent among the Egyptians, if his people obeyed the laws he laid down in regard to health and right living. Just as in these days if such laws are obeyed or enforced, we will escape the ills that come of their violation.

And for more than thirty years the Medical Profession having once started on the correct trail, has been trying to commit Professional Suicide by directing all its efforts to the eradication of disease for the prolongation and conservation of human life.

It has made astounding discoveries of the causes of disease, and its old traditions are gradually disappearing. Our age is one of wonderful progress in all departments of science, and our profession is keeping pace with the age. Preventive medicine is the corner stone of our future achievements, and although it has already lengthened the average age of man in civilized communities, it is still in its infancy.

Its triumphs in the last decade, however, hold out hopes of greater things in the future, and as Dr. Osler has said in a recent article "Man's Redemption of Man" lies in the successful work of this science. Its development into a special science is the result of the revolution in our conception of the nature of maladies that have so afflicted the human race in the past—thus enabling us to take such measures, sanitary and otherwise, as to prevent their spread.

The high rank attained by the Medical Profession of this day, its great importance in the public eye, is because of

its power to prevent or avert disease, and not because of its ability to cure. How much this power would be enhanced, how much more it could accomplish in the domain of preventive medicine in this country if our profession was represented in the central government with a special Bureau of Sanitation and Preventive Medicine, presided over by a medical officer, as a member of the Cabinet, can hardly be estimated.

The warfare against preventable diseases, and every year we are adding more human afflictions to this category, would be more successfully waged as appropriate legislation to this end would be enacted by the National and State Governments.

When this is done, and the necessary legal enactments enforced, fifty years hence will see many of the present scourges of the human race eradicated, and the time of human life still more prolonged.

Less than fifty years ago, the germ theory of disease first saw light, and Lister and Pasteur were among its first exponents, but to Robert Koch we owe the solution of the connection between bacteria and infectious disease.

In 1876 he gave us his work on *anthrax*.

In 1882 he discovered the bacillus of *tuberculosis*, and later gave us *tuberculin* as a means of diagnosis, and according to some an agent for immunization.

In 1883 he found the comma-bacillus of *cholera*, which resulted in practical preventive measures against its spread, by recognizing the cases early and isolating them.

In 1896 he confirmed Donald Ross' discovery that the *malarial parasite* (the *hæmamoeba*) was carried by mosquitoes (the *anopheles*) and gave us the idea of its prevention, by the use of quinine to stop the development of the toxins.

His studies of *typhoid fever* resulted in the present methods for its suppression.

More, therefore, than to any other one man, we are indebted to Robert Koch for the fundamental knowledge of

the pathology of infectious diseases upon which preventive medicine is founded.

Others have added much to this knowledge that is of inestimable value.

Neisser discovered the germ of *gonorrhoea*, in 1879; Laveran of *malaria* (*hæmamoeba*), in 1880; Eberth the bacillus of *typhoid fever* (*bacillus typhiabdominalis*), in 1880; Klebs the germ of *diphtheria* (*Klebs-Loeffler bacillus*), in 1883; Kitasato the germ of *tetanus*, in 1889; Castellani of *sleeping sickness* (*trypanosome*), in 1882; Yersin that of *bubonic plague*, in 1894; Shiga that of *dysentery*, in 1898; Weichselbaum of *cerebrospinal meningitis* (*diplococcus intra-cellularis*), and Schaudinn that of *syphilis*, in 1905.

The demonstration by Reed, Carroll and Agramonte of Dr. Carlos Finlay's hypothesis that yellow fever was transmitted by a species of mosquito (the *stegomyia*) as Koch had done in regard to malaria, made the method of its prevention a simple matter.

Yellow fever killed hundreds of thousands prior to 1900. Reed, Carroll and Lazear experimented on themselves with the mosquito to confirm the above mentioned hypothesis, proved its accuracy, and the sacrifices it entailed to themselves saved the lives of thousands.

Look at the results in Cuba and Brazil. Is there any greater achievement in human annals.

Panama, called the graveyard of the white man, has, because of the discoveries about malaria, been made as healthy, if not more so, than any city in this United States. Could preventive medicine have any greater monument?

Equally successful warfare has been and is being waged with other infectious diseases. Typhus fever has been practically eliminated. Koch gave us the control of cholera. The cause of typhoid fever being known, sanitary measures to keep the water free from contamination and the destruction of the house fly, its common carrier, go far towards its prevention.

TUBERCULOSIS.

Tuberculosis, one of the greatest of human plagues, has been robbed of half its terrors since the discovery of its causation. Sanitary and preventive medicine has reduced its mortality at least 50 per cent., and if it could be brought under such control as it is possible with modern methods, rigidly applied by appropriate laws, the so-called "Great White Plague" would be reduced to a minimum. We know how it is caused, how it is spread, and how it can be prevented or even cured if taken in time, and yet for lack of such control, it is still killing more people than any other single disease.

A public campaign has been inaugurated in this country and has interested scores of people who are giving their aid to the medical profession in their efforts to stamp out this disease. This should be fruitful in results, but as Dr. Osler says, "the means instituted present difficulties interwoven with the very fabric of society, but they are not insuperable, and are gradually disappearing."

PLAGUE.

The discovery that the plague was carried by rats and their attending fleas, has gone far towards its banishment from civilized communities, and the fight in California since 1900, which resulted in its limitation to a small danger zone less than forty miles square, shows what can be done. Its present death march through Manchuria is due to neglect of all the simplest laws for limiting its spread.

CANCER.

Cancer is another of the human plagues that would be materially lessened by popular education on the subject. There are 80,000 cases, and 40,000 deaths annually in these United States, half of which could have been readily cured by early diagnosis and appropriate treatment.

Nearly all acute diseases are due to bacterial infection, and bacteria cannot propagate on poor soil. Good sanitation is the reverse of good farming. Its object is to present

as poor soil as possible to infectious agents, to do away with bad drainage, contaminated water, poorly constructed dwellings, overcrowding of human beings, and overworking them, improper food, and the excessive use of stimulants, tobacco, and drugs, and this can only be accomplished in time by such legal means to this end as can be enforced.

The discovery of the specific germs of various diseases, and the laboratory investigations of them brought about the development of protective inoculation and vaccine therapy on a scientific basis, as presented by

Pasteur in rabies;

Haffkine in cholera;

Behring in diphtheria;

Shiga in dysentery;

Flexner in cerebrospinal meningitis;

Leishman and Chantemesse in typhoid fever;

Kitasato and others in tetanus;

Yersin in plague.

Vaccination against typhoid fever is being experimented with, and has been partially successful.*

The scientific application of this principle to bacterial disease it is hoped will ultimately give us such results that most of these diseases will be a thing of the past. Most of

*In 1896 Pfeiffer did the pioneer work. Leishman, in three years and a half prior to 1908, showed that of 5,473 vaccinated only 21 took the disease, and 2 died; whereas, of 6,610 not vaccinated 187 took it, and 26 died. In Peshawur, India, an epidemic in the army was cut short by vaccinating 70 per cent. of the command.

In our own army, among 8,510 vaccinated not one took the disease, although 200 among the unvaccinated were attacked.

"Carriers" have been cured by six inoculations. The vaccine produces specific anti-bodies, which destroy typhoid bacilli. The injection is made subcutaneously, but no one should be vaccinated who is not perfectly healthy. First dose should be 500 million; second 1,000 million, ten days apart.

There is slight constitutional reaction, malaise and headache. Local reaction, redness, etc., and sometimes tenderness of axillary glands. Anaphylaxis (or increased susceptibility) has not been demonstrated. Length of time for immunity undetermined, but about six months. Uses, prevention when an epidemic exists—in families where a case is—in hospitals, army posts, etc.

the anti-bacterial serums thus far tried have not met with the success expected of them, except Flexner's serum for cerebrospinal meningitis, and probably the Pasteur treatment for rabies. Pasteur and Koch were the first to employ vaccine therapy, but Wright laid down the guiding principle of this treatment in establishing an index to determine the effect, and course of the reaction—viz., the opsonic index.

Further investigation and experimentation, may give us as great results from other antitoxins, as have been demonstrated in regard to diphtheria antitoxin.

It is hoped that some day a specific will be found for every germ disease—*i. e.*, a remedy that when taken or injected into the system, will destroy the disease germ without injuring the healthy tissues.

Protective inoculation—as in small-pox (Jenner)—is to produce artificially a state of immunity against certain poisons that produce disease, by being inoculated with the bacteria or bacterial products of that disease, just as an attack of small-pox, scarlet fever, yellow fever, etc., protects against a subsequent attack.

The attack produced a certain antitoxin that fortifies the system against the invasion of certain germs or against the production of the toxins manufactured by these germs—*i. e.*, bacterial immunity is thus acquired naturally.

So also act the antitoxins which are substances injected into an individual to protect him against the toxins of a specific disease, and give an artificially acquired immunity.

But practically all the remedies which destroy living organisms in the body tissues are poisonous, and if the dose required to do this is so large as to be dangerous, they are useless because to be of practical value, they must destroy the offending organism without injury to vital organs.

Remedies of this character are divided into vaccines or serums, and chemical agents, or serum-therapy and chemotherapy.

Animal parasites causing such diseases as malaria, trypanosomiasis, or sleeping sickness, amebic dysentery, syphilis, etc., cannot be destroyed by any known serum-therapy, and must be made to yield to such chemical agents as will render them non-toxic, just as quinine has been used in malaria for many years.

In the last few years, Ehrlich has done enough in this latter line of work to make him immortal, in addition to his discoveries in regard to toxin immunity.

Atoxyl was empirically shown to be useful in sleeping sickness, but was found to be dangerous. Ehrlich, in experimenting with this substance in animals, found a great number of derivatives (over 600), of which only a very few proved to be valuable in killing the parasites, without damaging the organs of the animal. The most important of these were 418, arseno-phenyl-glycin for sleeping sickness, and No. 606 or arseno-benzoal for syphilis.

SLEEPING SICKNESS.

Trypanosomiasis, or sleeping sickness, is the scourge of Equatorial Africa, the germs of which are transmitted by the tsetse fly. Ehrlich's No. 418, has cured a large number of cases with one or two injections of a very small dose, but the mode of usage and dosage is still in the experimental stage.

SYPHILIS.

Syphilis has been known for 400 years, and done incalculable damage to the human race, but only in 1905 was its germs known as spirochæte pallida of the parasite family of spirilla. Mercury and iodide of potach has a tendency to diminish the toxicity of these germs if not to destroy them, and have been our main dependence.

Ehrlich found the remedy that destroys the trypanosome was useless in syphilis, and in further experiments discovered that the 606th derivative of atoxyl, arseno-benzoal, or salversan, caused the immediate disappearance of the spirochæte, when injected into an infected rabbit. His

late improvement of this drug which is less toxic is known as "hyper-ideal."

By its use, syphilis has been made controllable and to some extent preventable. The spirochæte disappear in from seven to ten days after injection. It acts by causing leukocytosis and formation of anti-bodies.

Its early use cuts short the attack, and prevents secondary and tertiary symptoms in many cases, but not all. In syphilitic mothers, its use is said to prevent infection, and saves the child from its fatal inheritance. Thus far it has not done all that was expected of it, although it has made a remarkable record, and with further knowledge of its application, it may meet all expectations. But it is an arsenical preparation, and, therefore, poisonous and dangerous. It has caused hopeless blindness and produced other ill effects. It cannot be used by the patient, but only by a physician, as it must be given intra-muscularly, preferably in the gluteal region, or by intravenous injections, and only to suitable subjects, as there are cases where it is contra-indicated.

The important question now at issue is what dose should be given at different stages of the disease, and what is the best way of giving it.

The achievements in chemo-therapy have, however, been wonderful, and opened up a great field for the alleviation of human suffering and prevention of disease.

OBSTETRICS.

Preventive medicine to be effective should begin at the beginning, in guarding the unborn child from hereditary trouble, in fact, it should go behind this, and prevent the union of those unfit to propagate the species. As far as possible, this is done in the animal and vegetable kingdoms, and the day may come when suitable legislation may accomplish the same among the human species—viz., only the breeding of the best from a physical and moral standpoint. This would only be an improvement on the old Spartan cus-

tom of making way with all maimed, diseased, or defective infants to save the State the expense of rearing undesirable citizens.

Waiting for this much desired goal, the next best thing is prophylaxis in the puerperal state, as nearly all the diseases of the new-born are preventable, especially the infectious diseases, and here the question of midwives is an all-important consideration, as thousands of women and children are annually sacrificed on the altar of the ignorance and incapacity of these women.

INFANT MORTALITY.

The question of infant mortality is a burning issue at present. Because of the heavy mortality the past summer, it has engaged the attention of our municipal authorities in most of our large cities; and in some of its aspects should be investigated by the State with a view to the prevention of the causes of the deplorable loss of life among our infant population. The babies of this generation are the material out of which the citizens of the next are made, and the State should give them proper protection. For instance, diphtheria still kills too many children, and physicians are partly responsible for it, in as much as they do not or will not use the means of prevention that science has given them, the proper employment of antitoxin.* Twenty thousand children died in America of diphtheria in 1909—statistics for 1910 were not available—14,000 of these deaths were attributable to the doctors' ignorance or carelessness. The death rate ought to be only six in 100,000 of the population, as it is in Paris, the effect of their admirable laws; and appropriate legislation would give us the same results.

*In mild cases, 3,000 units is the initial dose in the first 24 hours, 6,000 units if 36 hours have elapsed; and in 8 hours, if no marked improvement, same or larger dose, to be repeated every six or eight hours until convalescence. The cost of production of 6,000 units is about 35 cents, and sells for \$10, and at least \$30 worth is required for any case, practically prohibitive for the poor, unless the State puts it within their means, and in some localities this is being done.

France is far ahead of us in measures to care for its infants, especially through the education of the mother. With a comparatively small birth rate, it has no children to spare, and must guard well those it has.

Here it may be asked if antitoxin is dangerous. Possibly, in rare cases when anaphylaxis has been produced by its use in a previous attack, within three weeks. It should then be used with caution, or not at all, but these fatalities are so rare as hardly to be considered.

CEREBROSPINAL MENINGITIS.

One of the greatest triumphs of preventive medicine in reducing infant mortality is the control of the terrible malady of childhood—cerebrospinal meningitis—by the isolation of the specific germ (the diplococcus intracellularis), and the later discovery of a serum by Dr. Flexner to neutralize or prevent the toxines.

SCHOOL HYGIENE.

School hygiene plays an important part in preventive medicine. The systematic examination of school children that has been inaugurated in many of our cities, and which should by State legislation be made compulsory in all schools, goes far to safeguard these little ones against the evil results of overlooking the various affections of the eye, ear and throat. Impairment of vision is discovered in time to correct any existing astigmatism, and prevent the diseased condition known as progressive myopia or nearsight, as also the asthenopia or weak eyes, so often due to some systemic condition of which it is only a condition. The correction of impaired vision by the adaptation of glasses is not, therefore, the only remedy, because the impairment may be the result of some constitutional condition that requires investigation and treatment. But the prescribing of glasses is of as much remedial importance as prescribing of drugs, and no one but a trained physician should be allowed to do this work. The effect of eye strain on the nervous system of the child, and the many resulting dis-

orders of mind and body that follow from neglecting or improperly treating the eye trouble that causes it, have been so well demonstrated again and again by scientific investigation that it seems superfluous to refer to it here. Yet I feel constrained to do so because of the well-known disregard of such an important matter by our health authorities and the State. The public should receive appropriate education along these lines, and the State should restrict the adaptation of glasses to those competent to prescribe them, if we would protect these children from the evil consequences of misfit lenses.

Nasal obstruction, and its serious complications of mouth breathing, and commencing deafness, are discovered, and treatment applied early enough to prevent the damaging consequences of its neglect.

Preventive surgery has its field as well as preventive medicine, and there is no more important work in this line than the early removal of adenoids, if obstructive to normal breathing, and of the tonsils when they have given trouble, and show evidence of being a menace to the organism as a focus of infection.

OPHTHALMIA NEONATORUM.

Among the preventable afflictions of the human race is the blindness resulting from the purulent ophthalmia of infants. This plague has been made the subject of special legislation by the A. M. A., and through its sub-committees in every State, has tried to get State laws for its suppression, and the Russell Sage Foundation has appropriated money to assist in this work. It is readily preventable, and every physician knows or should know its cause, its infectious character, its danger to sight, its prophylaxis, and its treatment when preventive measures have not been taken. When it occurs in the practice of any physician, it is due to his negligence or ignorance.

Therefore, every case is a disgrace to the profession, and a blot on our civilization. Think of it! Sixty thousand blind persons in the United States, of which 20 to 45 per

cent. are blind from ophthalmia neonatorum, blind because of the culpable negligence of members of our profession, or, because of the ignorance of the midwives who have officiated at the births in place of the physicians. What a commentary on modern up-to-date preventive medicine.

Should not something be done to make our preventive knowledge effective, and save the sight of these little ones? A campaign of education should be instituted among physicians to awaken them to the importance of this subject, the public made to understand what it is, and what should be done to prevent it, and among midwives to make them appreciate one of their most essential duties in their attendance upon a birth.

Legal enactment should be passed in every State, making birth reports obligatory (a most important factor in vital statistics) within thirty-six hours by whoever presides at the birth, and in addition a report within six hours of any eye trouble manifesting itself.

Midwives should be placed under legal control, by requiring them to be registered, and licensed, and to meet certain requirements before being registered, and to be held responsible for neglect in reporting births or ophthalmia promptly, under penalty of losing their license.

Both physicians and midwives should be compelled to use the prophylactic treatment in all infant's eyes at birth, and this can only be accomplished by proper legislation, as has already been done in some States.

Why should Virginia and the Carolinas be behind in this important work?

The profession of these three States could do much towards having the needed legislation passed, and this Association would be an important factor in such a crusade.

DEFECTIVE VISION.

Take also the question of increasing defective vision among adults, where preventive measures have such a fertile field.

Mr. John Darch stated before the Congress of the Royal Sanitary Institute, recently held at Brighton, England, that "defective vision was the outcome of ill-regulated civilization, and it is estimated that about half the students and close working classes are sufferers therefrom in one way or another. Insufficient, or improper lighting in schools, offices and workshops, is largely responsible for the increase of myopia, astigmatism, and other attendant nerve troubles."

If the State would enact some legislative regulations to compel adequate lighting of all places where close work is carried on, it would prevent many of these troubles. That the State has the right and power to do this, if it will recognize its duty, is unquestioned. The subject of proper illumination of all places where people congregate and work should be as much considered by the State authorities as proper drainage.

It is as much the duty of the State to look out for the preservation of the health of its citizens as for their protection from injury or robbery. That this is to a certain extent recognized is shown by the establishment of Government, State and Civic Health Boards all over the civilized world. No one questions the right of the State to isolate persons suffering from contagious diseases, and to restrain their personal liberty to such an extent as may prevent others from being infected. This right should apply equally in all directions that can prevent diseased conditions of any kind, which might impair the usefulness of the citizens or imperil the health of the community.

Recently a decision was rendered in Minnesota that a municipality was liable for deaths from typhoid fever if it carelessly allowed its water system to become polluted. Diseases are, however, contracted in other ways as well, and most of them are unnecessary, being the result of ignorance of the commonest laws of health, and, therefore, are preventable. Prevention is the only treatment, because once contracted, quite a number are incurable.

When scientific medicine has discovered the cause of any disease, and demonstrated that it can be controlled or prevented by certain measures provided these measures can be applied, it is the duty of the State to vest its health authorities with the power to enforce their application whenever and wherever needed.

As for example, compulsory vaccination for small-pox, the compulsory use of antitoxin in diphtheria, etc., just as we now have a compulsory quarantine in well-known infectious and contagious diseases by excluding or isolating persons who have been exposed to the risk of contagion.

The question of invasion of personal rights and personal liberty should never obtain in the case of the few when we consider the risks of the many.

Boards of Health are doing much, but not enough, because of the lack of authority. Their work is all uphill work, because the protection of the public health often requires the individual to do what he is unwilling to do, and it is difficult to make him see the necessity of this unless some personal or family disaster or affliction brings it home to himself. Fear or affection often converts the obstructionist to a realization of the importance of public health problems when no argument could convince him.

It is a strange commentary on human intelligence that there are regularly organized anti-vaccination societies, formed to combat vaccination against small-pox; in fact, to fight for the continuance of one of the most destructive of diseases, and in consequence many States lack a compulsory vaccination law.

When the public health authorities have the power and the means to enforce their orders for the protection of the community against disease, they can afford more efficient protection in this regard, than the courts and police could give against injury or robbery, as has been demonstrated in Cuba in the eradication of yellow fever, and in Panama of malaria. With the power, and the money to meet expenses, the public health problems would be readily solved.

Funds to carry out their work are in most places lacking, because our Governments, States and municipalities are mostly niggardly in appropriating the means to do what should be done to prevent or control disease. Where did the means for the campaign against hookworm disease come from? Not from the States where it was prevalent.

Germany is far ahead of us in this respect, and its government gives liberally towards scientific investigation into the causes and control of disease in its universities and hospitals, and to its public health authorities in the practical application of the results of such investigation.

Look at the names of the discoverers of the causes of disease. Not an American among them, because of lack of means and facilities for making the necessary investigations.

The public health in all its aspects should receive as much attention from the National and State Governments as questions of policy, finance, commerce, etc., if from no other motive than that of the pocket—viz., from an economic standpoint.

If the citizen is diseased, his usefulness is curtailed, if as a result of disease he is maimed, crippled or blinded, he often becomes a burden to the community, if his life thereby is cut short, his services are ended. Has anyone ever calculated the economic loss to the country that might be materially reduced by giving the same attention to the preservation of the human species as is given to animals? It must amount to millions annually, if we figure that every individual life has an actual value in the work it is supposed to do in the community.

Sooner or later, the day will come when the value of human life will outweigh all other considerations, and the battle against disease, which modern preventive medicine has inaugurated, will enlist all the people when they are made to realize its importance to themselves individually, in the present, and to the human race at large in the future.—*Va. Med. Semi-Monthly.*

Obituary.

JOHN JAY TAYLOR, M. D., Editor and founder of the "*Medical Council*," of Philadelphia, died at his summer home in Ocean City, N. J., from exhaustion, Aug. 1st, 1912, after having suffered for more than two years with cancer of the tongue. He was born in Indiana, Nov. 24, 1853, and came to Philadelphia in early life to study medicine, making a decided success in the profession of his choice, which he loved so well, both as student and practitioner. With mind of literary bent, he established the *Medical Council* twenty-five years ago, and we have ever recognized and esteemed it as one of our most valued monthly exchanges.

It has been some years since we had the great pleasure of meeting him personally, but we well remember his gentle and kindly manner, his genial and cordial hand-shake, his unassuming but positive characteristics. He was a member of the Medical Club of Philadelphia, the Philadelphia County Medical Society, the Medical Society of the State of Pennsylvania, the American Medical Association, the American Medical Editors' Association, the American Academy of Political and Social Science, the American Society for Advancement of Science, and many other social clubs, including the Masonic Order, as well as other organizations, and in all of them showed himself to be a man, honest, true to his ideals, tolerant, courteous, and sympathetic.

We are glad to know that *The Medical Council* will be continued under the editorial supervision of Dr. Thomas S. Blair, who has been an editorial writer on the staff of the *Council* for a number of years, and has been intimately associated with its founder. There will be no change in the business arrangements. The efficient business organization that Dr. Taylor built up and trained over a num-

ber of years will continue under the general direction of his widow, Mrs. J. J. Taylor. To her we respectfully beg leave to tender our most sincere sympathies and condolence in her great—her irreparable loss.

JOHN COWDEN, M. D.:—As the result of injuries sustained in a runaway when he was thrown out of his buggy some weeks ago, Dr. John Cowden, for over half a century a resident and practicing physician of Petersburg, Tenn., and father of Dr. C. N. Cowden, of Nashville, died at his home Friday, Sept. 20th, 1912, at 3 o'clock p. m.

In the death of Dr. Cowden that section has lost one of its most prominent and honored citizens and one of its leading physicians. No man perhaps in that section was more generally or more favorably known.

He was born and reared in Marshall County, where he lived during his entire career exemplifying in his sixty years of professional work all of the virtues of the typical country doctor, whose labor was as unremitting as it was unselfish, a veritable "Weelum M'Clure."

Dr. Cowden was a brother of the late Col. W. N. Cowden, a prominent lawyer of Marshall County, and at one time Comptroller of the State.

In early manhood Dr. Cowden married Miss Mary Leonard, a member of one of the pioneer families of Marshall County, and the daughter of Dr. Griffith J. Leonard. Several children of this marriage and a second wife survive him. The children are: Mrs. Viola Marsh of Petersburg, Tenn., Mrs. Josie Bills of Fayetteville, Tenn., Mrs. Z. D. Jones of Texas, Mrs. E. E. Cowden of Middlesboro, Ky., Rev. J. B. Cowden of McMinnville, Tenn., and Dr. C. N. Cowden and Mrs. T. S. Pierce of Nashville. Dr. Cowden's second marriage was to Miss Lula Leonard of Marshall County.

Editorial.

TO MAKE HAZING A CRIME.

Everything that tends or threatens to cut short the span of human life or add to human pain and suffering comes within the province of the broad domain of Medicine; and while "hazing" comes properly within the tenets and teachings of pedagogics and educational polemics, yet its effects in the past on human life and limb justifies its consideration in the pages even of an ephemeral medical publication.

The death of a student at the University of North Carolina from hazing and the probable fatal injury of an Ohio schoolboy from similar rough treatment by his schoolmates, as well as many other like lamentable instances that are well within the memory of the present generation, call attention to the need of a definite remedy for such exhibitions of student brutality. One is suggested by the action of the President and trustees of the North Carolina institution in petitioning the Legislature to pass a law making college hazing a criminal offense.

That is what the law regards similar acts of personal violence by boys not at college, and there is no valid reason why they should be condoned when committed by students. The academic tradition has too long survived in this particular, and the theory that youths pursuing a college education constitute a privileged class should be exploded.

Hazing is but another name for "horse-play," and while it may be very amusing at the time to the *hazers* it is only too often rather rough on the *hazee*—the boys may like it, but how about the frogs! Half a century ago "horse-play" was quite extant with the medical classes garnered and gathered from city, town and village, as well as from entirely rural environment; but we are gratified to know that it has of late years gradually become more and more obsolete with the young men who are just entering the temple devoted to the grand science and art of medicine.

A very sad incident comes vividly to mind, although the trials and tribulations of more than fifty years intervene, so vivid indeed, that it may bear brief relation. The scenes of the dissecting room in our student days were grewsome indeed, and especially so to the raw, unsophisticated country youth; and for that matter, some of those

reared amid the madding throng of our most populous cities, from mental characteristics or inherent natural tendencies may faint at the mere sight of blood, especially if it is flowing from the tissues of a fellow being—and the first visit to a dissecting room may well “strike terror to the soul” of one who in the days to come may add the “boldness of the lion to the gentleness of a woman.”

Adjoining the anatomical room of our Alma Mater was the wash-room, and all medical colleges were then, as now, arranged along pretty much the same lines. Around three sides of the wash-room was fixed a zinc-lined trough, about thirty inches from the floor, six or eight inches deep and twenty-four to thirty wide, with the ordinary hydrant taps placed about one-and-one-half or two feet apart and at a convenient distance above the trough. An ample supply of soap and towels completed the equipment. Fires were not permitted on the floor—usually the upper one of the building, as the preservation of anatomical material was not perfected to the degree that now prevails, and the art of plumbing was in its incipency, the heating appliances of the present being an unknown quantity.

Whenever a new recruit to the Aesculapian ranks would faint on his entrance to the room, an immediate rush would be made for him by his future colleagues and associates who had become accustomed to the grim environment; and while still unconscious, he would be quickly borne to the washroom, laid lengthwise in the zinc-lined trough and as many taps fully turned on as would extend the length of his body or beyond. At the first dash of the cold water, as a rule, he would be aroused from his syncope and endeavor to “get out of the wet,” which would often be forcibly resisted by his tormentors.

Among the matriculants at the beginning of my second year, a quiet, refined but somewhat delicate young man from a rural section of this State, well educated, having received both collegiate B. A. and A. M., made his first appearance in the dissecting room on a bitter cold November night. The regular sessions in that day beginning with November, with an optional “preliminary course” in October. The *mise en scene* was too much for his sensibilities—the partly eviscerated and dismembered bodies, the odors and other incidentals made such an impression that he fell to the floor unconscious. The yell of “FRESH FISH” rang out and he received the usual treatment of those days.

The result: A violent attack of double pleuro-pneumonia about ten days later, from which after many days “hovering on the brink,” he recovered sufficiently to go on with his studies, only to succumb to an attack of Pulmonary Tuberculosis a little over a year after receiving his degree of M. D. A valuable life wasted on the very threshold of possibly many years of usefulness. However, we can

with an extreme degree of gratification state from personal observation and connection with medical schools for more than thirty years just flown by, "horse-play" of that character has gradually but finally become a thing of the past. Other incidents of like character coming within our personal observation from time to time as the sickle has been put among the days, we most heartily and earnestly commend and endorse the correct views emanating from the "Old North State."

Hazing has declined at the larger universities by reason of the measures taken against it by the college authorities and as the result of unfavorable undergraduate sentiment. But its suppression should not be left to inadequate agencies of college discipline. Its survival at the smaller colleges justifies the North Carolina plan of putting on the State the burden of dealing with it as with other juvenile misdemeanors and crimes.

A NEW CURE FOR EPILEPSY.

Some of the greatest men in history, such as Hercules (it was called by the Greeks *Heracleus morbus*), Cæsar, Petrarch, Mohammed, Peter the Great, Luther, Napoleon and others suffered from epilepsy, *petit* or *grand mal*, and it has proven a *bête noir* to both ancient and modern medicine, first from its incurability; and second, from the almost inevitable resultant insanity of most violent and destructive type. Dr. Ralph H. Spangler, chief of the Medical Clinic of the Methodist Episcopal Hospital of Philadelphia, claims to have discovered a cure for it in *crotalin*, he having given more than two thousand injections of rattlesnake poison to more than one hundred epileptics, with, as he says, most gratifying results.

He claims to have cured children with convulsions of a few months standing, as well as older persons who had been so terribly afflicted for as long as twenty years. The rattlesnake poison as a therapeutic agent—*crotalin* is obtained from the serpent by making him strike into a rubber bag, or by holding its head securely and having an assistant withdraw it from the gland with a hypodermic needle, which, when dried by evaporation between plates of glass in the sun, appears as yellow, scaly crystals. These are dissolved in glycerine and sterilized water, and used in one-hundredth grain doses or less, hypodermatically, at intervals determined by the repetition of the spasms.

Rattlesnake poison possesses two separate and distinct toxic qualities. Although the nature of the changes wrought by it are not clearly understood, there is little likelihood that any one will deny

its power to lessen the clotting power of the blood and to paralyze the brain and nerve centres.

Recognizing that some cases of epilepsy have an intrinsic quality in the blood serum that heightens its clotting strength, Dr. Spangler thought of croctalin as a possible remedy. Obviously, however, there are numerous persons with convulsions or epileptic fits whose blood is just the same as that of the average healthy individual.

Dr. Spangler claims upon testing the venom upon epileptics, both with and without an excessive blood clotting facility, the poison, in proper doses, was found to do its work.

Dr. Spangler found that not only was the violence of the fits appreciably and gradually cut down by the croctalin treatment, but the general sensitiveness and excitability of the nervous system was pacified. Then again the general health and mental powers as well as the appetite and nutritive strength of the patient were definitely benefited.

Further developments and clinical results will be required to establish and confirm these claims; and if such be obtainable a most dread malady will be robbed of its terror, "Craig Colonies" and special institutions for epileptics rendered useless, and the number of inmates of our Hospitals for the insane very materially diminished.

SOME VALUABLE PRODUCTS FOR THE TREATMENT OF DISEASES OF BACTERIAL ORIGIN:—Since the advent of diphtheria antitoxin it is doubtful if any new remedial agent has elicited greater interest than is now being manifested in the bacterial derivatives known as Phylacogens. These products were originated by Dr. A. F. Schafer, of California, the method of preparation and technique of application being first presented to the San Joaquin Medical Society in Fresno. To the uninitiated it may be said that the term Phylacogen (pronounced phy-LAC-o-gen) means "phylaxin producer," being derived from two Greek words signifying "a guard" and "to produce." The Phylacogens are sterile aqueous solutions of metabolic substances generated by bacteria grown in artificial media. They are produced from a large variety of pathogenic bacteria, such as the several staphylococci, streptococcus pyogenes, bacillus pyocyaneus, diplococcus pneumoniae, bacillus typhosus, bacillus coli communis, streptococcus rheumaticus, streptococcus erysipelatis, etc.

Four Phylacogens are now offered to the medical profession: Mixed Infection Phylacogen (used in the treatment of bacterial diseases of unknown etiology), Rheumatism Phylacogen, Erysipelas, Phylacogen, and Gonorrhea Phylacogen. They have been thoroughly tested clinically and are said to be producing excellent results

in the treatment of the various pathological conditions in which they are indicated. They are administered hypodermically—subcutaneously or intravenously—preferably by the former method, the latter being advised only in cases in which a quick result is demanded. They are supplied in hermetically sealed glass vials of 10 Cc. capacity.

The Phylacogens are prepared and marketed by Parke, Davis & Co., who have recently issued a 24-page pamphlet which describes them in detail—the process of manufacture, therapeutic indications, dosage, methods of administration—everything, in fact, that needs to be known by the man who desires to use phylacogens. Every physician in general practice, every practitioner who desires to keep abreast of the latest advances in bacterial therapy, should have a copy of this valuable booklet. Write to Parke, Davis & Co., at their general offices in Detroit, Mich., ask for the "Phylacogen pamphlet," and mention this journal.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

MOVING-PICTURE SCIENCE TEACHING:—A cinematographic demonstration was given by Prof. Paul Heger of Brussels showing the effects of poisons on the heart and the circulation of blood in the blood-vessels. The object of the demonstration was to prove the utility and importance of the cinematograph in the teaching of science to large classes of students, especially in displaying on a large scale things otherwise observable only under the microscope. Prof. Heger suggested to the section the establishment of a central cinematograph institute, where physiologists could prepare such films for use in teaching.

THREE VARIETIES OF DYSMENORRHOEA:—In an article by Solomon Henry Secoy, M. D., of Jeffersonville, Ind., he refers especially to the causes and treatment of dysmenorrhœa and offers some valuable

suggestions as follows: "I am in the habit of regarding dysmenorrhœa as capable of division into three varieties. They are the neuralgic, the obstructive, and the membranous. The neuralgic form is a pure neuralgia, and its subjects, in all cases, will give a history upon which we can base its cause. These patients will tell us that never, prior to the attacks which they have recently undergone, have they had dysmenorrhœa. It is caused generally by malaria and other influences which tend to lower the general health.

"The treatment of dysmenorrhœa very naturally comprises such remedies and procedures as will correct the cause, and the administration of anodynes to relieve the pain. In the neuralgic form we must correct the cause. If that be malaria, quinine must be given. In most cases where the neuralgic form is presented there is anemia, and no relief will be secured till this factor is overcome. Iron in some available form must, therefore, be given. During the period of menstruation the administration of antikamnia and codeine tablets in doses of two tablets every two hours, will relieve the pain. If these tablets are given at the beginning of the attack, we can often entirely prevent pain."

AUTUMNAL AILMENTS:—The Autumnal months constitute the season during which the average practicing physician is called upon to treat the following conditions: 1. Typhoid Fever, which is, more often than not, contracted at some unhygienic Summer resort. The patient may return home during the first week or so, with headache, malaise, etc., or the premonitory or primary symptoms may appear after reaching home. 2. Malarial Infection, in certain sections, which is more than usually rife in the Spring and Fall seasons. 3. The after results of the gastro-intestinal disorders of infants and young children, due to improper feeding, etc., during the heated term. In almost every instance, when the acute symptoms have subsided, a condition of anemia and general devitalization is the final result that constitutes the essential indication for treatment. In convalescence from all forms of illness resulting in general debility, Pepto-Mangan (Gude) is the one ideal tonic and reconstructive. It not only revitalizes the blood, but also tones up every physiologic function. It stimulates the appetite, improves the absorptive capacity, increases energy and ambition and restores the blood to its normal condition. It is, thus, a general tonic and reconstituent of marked and certain value.

ANAEMIA AND TISSUE WASTE:—Tissue waste, which is secondary to depletion of the system by interference with tissue repair, is often very persistent for the reason that it is not accorded systematic treat-

ment. The failure to correct anæmia and tissue waste is a serious mistake. The practitioner's duties are by no means over when the acute disease has spent its force. In fact, the physician should regard it as a routine duty to institute such treatment, at the conclusion of an acute disease, as will look to the correction of anæmia, and the repair of depleted tissues. Such a course changes the results remarkably—and of course insures the patient against many subsequent untoward results which accrue from the lowering of the resisting powers of the economy.

In treating anæmia and tissue waste Bovinine is of great value. This agent is a pure tissue food and contains all the nutritive elements. It contains true animal iron, which is incomparably superior to any of the inorganic preparation that can be found.

It should be given in increasing dosage, and continued until there is no longer any clinical evidence of anæmia, and until the former state of the tissues, as regards the matter of waste, has been restored.

A SAFE AND EFFICIENT SLEEP PRODUCER:—Considered from the view-point of therapeutic efficiency, safety, and freedom from evil effects, in *Pasadyne* the profession has its most reliable sleep-producing agent. *Pasadyne* is the distinctive name of Daniel's Concentrated Tincture of *Passiflora Incarnata*, which has been used extensively by physicians for a third of a century. Its advantages over chloral and the bromides are; superiority of action, freedom from gastric disturbance, absence of habit formation, and safety. The physician who has used the several agents named and compared their advantages, will not hesitate to continue to use *Pasadyne* in preference to chloral and the bromides.

In the practices of thousands of physicians *Pasadyne* has supplanted all other drugs in producing sleep, on account of its demonstrated superiority. The sleep it brings about is calm and restful; the patient awakens as refreshed as from natural sleep. A sample bottle will be furnished if application be made to the Laboratory of John B. Daniel, Atlanta.

PEPTOGENIC POWDER begins to do good work the moment it is mixed with water, milk and cream as directed, giving thus a mixture of the same percentage composition as mothers' milk in protein, carbohydrate, fat and ash. When the mixture is heated as directed, the good work goes on until the protein is converted into a soluble, minutely

coagulable form like the protein of mothers' milk, and we get a food which is practically an artificial human milk, quantitatively and qualitatively.

The success of milk prepared with Peptogenic Powder is very simply explained by the fact that this food is based upon comparative study of cows' and human milk; is designed to express the conviction that the best artificial food for infants is that which most closely conforms to the natural food—in chemical, physical and physiological properties.

THE FOURTH ANNUAL MEETING OF THE AMERICAN ASSOCIATION OF CLINICAL RESEARCH will be held in New York City, at the Academy of Medicine, on November 9, 1912.

The sessions will be held from 9 a. m. to 1 p. m., from 3 p. m. to 6 p. m., and from 8 p. m. to 10 p. m. The evening session will be open to the public.

Notable contributions on the Negri Bodies, on certain Fluids for Tubercle Bacilli in the Urine, on Adjustment and Function, on Psychoanalysis and Traumbedeutung, on a Pandemic of Malignant Encapsulated Throat Coccus, on The Single Remedy, on Indicanuria and Glycosuria, on Disease Conditions expressive of Correct Diagnosis, on Biochemic Problems, on The Two Most Far-Reaching Discoveries in Medicine, and others are to be given.

FOREIGN VISITORS: From a recent letter we learn that "Professor Dr. R. Strauss of Berlin will lecture at the New York Post-Graduate Medical School and Hospital, Second Ave. and Twentieth Street, on October 12th, 14th, and 15th, on the Diseases of the Stomach and Kidney. Professor Dr. Carl von Noorden, Physician in Chief to the City Hospital, Frankfort, Germany, will also deliver a series of lectures on the Pathology and Treatment of Diabetes, Radium Therapy and Arteriosclerosis at the same place, on October 28th to October 31st, inclusive."

IN CHILDREN CONVALESCING from acute infectious diseases, whooping-cough, bronchitis and similar affections, Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is always indicated; nor is it necessary to dwell upon the fact that in scrofulosis, rickets and other diseases of malnutrition, there is nothing better than Cord. Ext. Ol. Morrhuæ Comp. (Hagee), and it has always been relied upon in tuberculosis. On account of its palatability, patients will take it in quantities and long enough to secure results.

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SAMPLES ON APPLICATION MELLIER DRUG COMPANY, ST. LOUIS

THE DENVER CHEMICAL MFG. CO., manufacturers of *Antiphlogistine*, are to be congratulated on securing the services of Mr. Harold B. Scott as Manager of the Company, to succeed J. C. Bradley, who is retiring from that position.

Mr. Scott is a bright, energetic young man, a graduate of Yale University with the degree of A. B. Upon his graduation from college he entered the commercial world where he has enjoyed a wide, varied and successful experience in developing one of the greatest industries of our country. He is peculiarly well fitted for the management of a proprietary house, and his connection with *Antiphlogistine* will doubtless lead The Denver Chemical Mfg. Co. to spell success with larger letters than ever before.

Selections

THE ABUSE OF TABLETS:—The convenience of administration of drugs in tablet form and the commercial assiduity of the pharmacal houses in exploiting their wares leads to much inaccuracy and unfounded nihilism on the part of the dispensing doctor. While certain drugs are advisedly administered in tablet form, others lose part or all of their efficiency when dispensed in coated or compressed tablets.

Phenyl salicylate, for example, is a valuable drug when given as a powder or in a capsule; but dispensed in compressed tablets there is grave doubt whether it exerts its influence at all. As we know, the drug must be decomposed in the duodenum into its radicals—phenol and salicylic acid—in order to act, and the important factor of insolubility renders the employment of salol tablets a questionable practice.

Bismuth salts are likewise insoluble in tablet form, although the drug catalogues offer long lists of bismuth com-

binations to the thoughtless therapist. Brown mixture tablets, so called, occupy a place in many a medicine case, notwithstanding the fact that spirits of nitrous ether, one of the three active ingredients of brown mixture, does not lend itself to compression in tablets. Nitroglycerin tablets are widely dispensed by busy doctors, but with most uncertain results because so volatile a drug as glonoin cannot be accurately preserved in tablet triturates. Sodium nitrate is quite stable, less evanescent in effect and properly dispensed in one-grain or two-grain tablets.

Certain digestive tablets contain, according to label, definite quantities of hydrochloric and lactic acid—the one an exceedingly volatile gas and the other a volatile liquid. Are the labels true?

A well-known combination called "DaCosta's Heart Tonic" contains digitalis, strophanthus, belladonna and nitroglycerin. To begin with, digitalis should be given only with positive knowledge of the date of physiological test; its effect cannot be manifest in less than twenty-four to forty hours, and once obtained, continues for many hours thereafter without repetition of the dose. Belladonna, on the other hand, acts within half an hour by mouth and its action ceases—that is, the drug is wholly eliminated, in three or four hours as a rule. And, finally, nitroglycerin, if present in the tablet, acts within five minutes at most, and the effect is certainly not maintained more than two hours, probably not more than an hour. How frequently, then, should one repeat the dose of "DaCosta's" tablet? To maintain the belladonna or the nitroglycerin action without long intervals of inactivity one would have to run the risk of cumulative digitalis poisoning; but the careful prescriber need have no fear of cumulative if he administers digitalis not oftener than once in twenty-four hours. DaCosta's tablet is not, perhaps, what we call the "shot-gun" formula, but it is entitled to the distinction of "blunderbuss."

Our old friend, the U. S. P. Compound Cathartic Pill, is open to the same criticism. Of the active ingredients, jalap acts in about three hours; the calomel and the aloes act in about ten hours; the interval the patient devotes to damning his doctor or any other innocent bystander who may be handy. If you don't mind a griping hour, jalap is an excellent cathartic; calomel is veiled in the reverence of antiquity and no all-round cathartic combination seems complete without just a dash of aloes. But in the C. C. P. the U. S. P. is accessory before the fact to many a righteous burst of profanity.

Phenolphthalein in masticable lozenge or tablet is ideal, but, being absolutely insoluble, its action when administered in coated or glazed tablet is limited to the psychic effect of the label.

We would mention only to condemn the egregious custom of dispensing Blaud's pills by the boxful to anaemic patients. Did you ever watch the stools of patients taking these monstrosities? If not, you have a surprise coming; the cast-iron pellets negotiate the thirty-odd feet of alimentary canal unscathed, quite as good as new! Nascent iron developed in freshly made Blaud mass, and perhaps in liquid preparations combining ferrous sulphate with potassium carbonate, is nascent—soluble, only during the continuance of the chemical interchange brought about in the mixture. Blaud tablets become inert as so much pig iron when they are ten days or two weeks old.

Most of us use sodium salicylate in tablet form. But even this soluble drug is oftentimes better retained when administered in solution in a mildly alcoholic menstrum, such as the simple elixir of the Pharmacopeia. Time and again we have found that where the tablets produced nausea and vomiting, the drug in solution was well-borne.

Polypharmacy achieves its most depraved extreme in compressed coated tablets. Some of the formulae offered by the drug houses and accepted by the bewildered are terrible to behold. Six, ten, a dozen or more active ingredi-

ents in one tablet! By actual count we have seen patients under medical care taking no less than twenty-six drugs at one time, to wit: Anti-constipation pills (five drugs), Coryza No. 5 (six ingredients), Neuralgic Brown-Sequard (eight drugs) and Grippe No. 1 Red (seven drugs); total, twenty and six! This is not a horrible example. There are worse. Of course, there were several repeaters in the list, but that is usual—and the dispenser probably didn't know it. The average dispenser of polypharmaceutical tablets does not pretend to remember the formulae—he only knows that the detail man or the drug agent has highly recommended them.

From a scientific as well as a common-sense standpoint there is rarely any good reason for combining more than two or three ingredients in one tablet. In fact, many of our best therapeutists make it a rule to avoid all compound formulae in tablets. And this, we think, would be an excellent rule for general application.—*St. Louis Med. Review*.

TECHNIQUE OF OPERATION IN CAESAREAN SECTION:—Patient is prepared as for any abdominal section, taking special pains to cleanse the whole abdomen from the breast to the pubis. The vagina should be cleaned with scrubbing and bichloride irrigation. There should be two assistants, one to assist in the operation and the other to take the baby when delivered. The skin incision is made over the most prominent part of the tumor to the left of the umbilicus, and usually above it, and should not be longer than is necessary to deliver the baby through. The assistant makes pressure on each side of the uterus with his hands on the outside of the abdomen. When the uterus is exposed, no attempt to deliver it should be made, but the assistant by pressing well against each side of the abdomen can push it well into the wound and thus the operator can easily cut into it. There is no necessity of introducing towels or sponges into the abdomen as uterine wall closely approxi-

mates abdominal wall. Next the uterus is opened carefully and the hand inserted. If the incision has come upon the placental site, the placenta should be pushed to one side or even through. The membranes are now broken, the feet sought for and the child extracted. Delivery should be quickly and dextrously accomplished, the funis clamped and severed and handed to the second assistant in order that there may be no loss of time during this stage of the operation when some bleeding is unavoidable. The placenta is now removed. If the membranes are adherent, as they most always are, a piece of gauze in the gloved hand will greatly facilitate their removal, as you can get a much firmer grasp of them. By this time the uterus has become pretty well contracted and is ready to be sutured. Our custom has been to first put in a continuous deep suture of iodized catgut, which brings the mucous surfaces together as well as part of the muscular coats. We then put in an uninterrupted suture of Pagenstecker linen, which takes in the serous coat and part of the muscular coat. Any clots that may have escaped into the abdomen should be removed and the abdominal wound closed in the ordinary manner, paying special care to the fascia, which should be sutured with Pagenstecker linen. The after treatment is practically the same as in any abdominal operation, with the exception that a well-fitting binder should be worn for a long time. The success of this operation depends much upon the dexterity of the operator. In our cases the time required for the removal of the child from the beginning of the incision has been but a few minutes and the total time of operation from the beginning of the incision until complete closure of abdomen has not, in many of our cases, exceeded fifteen minutes.

In conclusion, we would say that Caesarean Section is indicated in addition to the formerly recognized pelvic deformities; in Eclampsia, Placenta Previa and in Dystocia of old muscular Primiperas in preference to high forceps delivery.—*Stuart H. Sheldon, M. D., in Medical Sentinel.*

BOARDING SCHOOLS AND GIRLHOOD DANGERS:—The unhygienic procedures of boarding schools, college dormitories and dining rooms, have received less attention than they should, as Dr. Goodell pointed out some time ago: By breaking down the nervous system, the brain-cramming, the intellectual rivalry, the buckram properties, and the unwholesome confinement of boarding schools, seminaries and colleges, breed a host of sickly girls who swarm in every class of society. Manifold diseases, both functional and structural, date from the recitation room. They are mostly of the uterine complexion for at that time of life the sexual sphere dominates and the burden of nervous and of the vascular disturbances which form the essence of nerve exhaustions, fall on the most exacting organs, the reproductive. Hence these suffer from neuralgic pains or from congestion and the lesions coming from prolonged congestion. Yet physicians misled by the urgency and number of the so-called uterine symptoms mistake the effect for the cause and give a local treatment when it should be a constitutional one. Indeed it is so common for girls in boarding schools to suffer either from amenorrhea or from irregular menstruation as to create a general impression in the community that in these schools some drug is secretly given in the food in order to lessen the laundry work. In one school of great repute so many girls missed their monthly periods that the family physician asked whether it were possible as his patients averred that, as their clothes were laundried in the building, something was given in their food or drink, to produce the effect for the purpose of saving the laundress the disagreeable task of washing napkins. Tuition of boarding schools and seminary mistresses of hygiene are imperatively needed for more reasons than one. The parents of girl students at boarding schools, seminaries and other institutions of learning should pay more attention to the hygienic status of, and medical attendance upon, such institution. One large seminary of a Southern Illinois town was for a time

under the medical care of an osteopath. The objections to a male masseur in the case of girls during adolescence are sufficiently obvious and they apply with still greater force in the case of a male osteopath. Hygienic diet, bathing, etc., are unnecessary when the osteopath can cure all the evil results of their neglect by "putting a bone in place." Probably from the seminary standpoint osteopathy is economical as avoiding unnecessary expenditures on food. It is significant that at the Illinois seminary since the advent of a male osteopath four of its students have been caught masquerading in male attire. Male massage has before this produced similar antics in girls.—*Dietetic and Hygienic Gazette*.

CANCER OF THE PENIS:—At the April meeting of the N. Y. Surgical Society, Dr. Charles L. Gibson presented a man, 27 years old, who was admitted to St. Luke's Hospital on August 20, 1906. He gave the history that six months before, he had been circumcised, and soon afterwards a small ulceration appeared on the glans, gradually spreading until it involved the whole anterior portion of the penis. It was painless, and micturition was not disturbed.

Operation: Excision *en bloc* of the inguinal nodes (which proved normal on microscopic examination), the corpus spongiosum to the pubes, and both crura of the corpora cavernosa. A meatus was established on the anterior surface of the scrotum. A plastic operation of scrotal flaps to be joined as an efferent canal to the meatus failed. Microscopically, the growth proved to be carcinoma. The patient had remained free from recurrence and the anterior meatus functionated well.

Dr. Gibson said he thought that cancer of the penis was a condition easily curable, providing one did as radical an operation as he had described.—*Annals of Surgery*, Sept., 1912.

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THE SURGICAL TREATMENT OF ENLARGEMENT OF THE PROSTATE GLAND.

BY W. FRANK GLENN, M. D., OF NASHVILLE, TENN.

It is the almost universal rule of our best physicians, when consulted by a patient who has sufficient enlargement of the prostate to interfere with the emptying of the bladder, to recommend removal of the prostate at once. If this is refused by the patient the catheter is advised. Most of the cases of prostatic enlargement are now fibrous and a very great portion of it is due to congestion. The bladder neck is always inflamed, and frequently the body of the bladder also. All of these cases occur in men past middle

age and in every instance the patient has been treated for many months, perhaps years before he consults a physician. His symptoms are frequent urination more at night than in day time, weakness of the stream of urine, and almost constant weakness in his bladder neck. This frequent urination the patient invariably attributes to "trouble with his kidneys." Finally the time arrives when he desires to urinate, but nothing comes. Try as he will, he cannot urinate at all. Then through sheer necessity he seeks his physician. How easy, how simple it is to introduce a catheter, empty his bladder and advise him to have his prostate removed. If this is refused, teach him to use a catheter, tell him how to sterilize it and he is doomed to a catheter life the balance of his days. Now both of these procedures are wrong in the majority of cases, but of the two prostatectomy is far preferable to a catheter life. Just here is where the skill of the wise physician is most needed. It is not immediate relief alone your patient needs, but proper treatment of the conditions present, which will, in most cases, in a few weeks restore the normal function of the bladder and your patient will be emptying his bladder completely, without the use of a catheter, and will generally get up at night only once or twice, while he formerly had to get up six or eight times.

As I said before, in the vast majority of these cases the enlargement of the prostate is a soft enlargement, there is congestion of it, also of bladder neck and seminal vessels. When this condition is relieved, Nature will generally reassert herself. In such cases the proper procedure is to empty the bladder twice a day by catheterization if the patient cannot urinate at all, and once a day if he can partially empty it. Immediately afterwards, wash the bladder and urethra out with a comfortably hot solution of permanganate of potassium, boric acid or protargol. The solution should not be milk warm, but as hot as can be borne without discomfort. In addition to this his pros-

tate and seminal vesicles should be thoroughly massaged every fifth day. This should be gentle at first while the parts are very tender, afterward using sufficient pressure for a thorough massage. The parts become less tender with each massage. In addition to these local measures, the patient's general condition should be improved. His blood and nervous system should be built up, his habits regulated and proper diet insisted upon. He should eat no meat at all, except a little chicken or fresh fish; he should eat no honey, syrup or preserves. He should drink eight to twelve glasses of free-stone water every twenty-four hours. Nothing better than distilled water. His diet should consist chiefly of raw fruits, eating between regular meals. His bowels should always act once in twenty-four hours at least. He should be advised to always try to empty his bladder naturally, and to avoid the use of a catheter, for once begun, Nature forever waits for it. Now as the great majority of cases of prostatic enlargement, which interfere to a greater or less extent with urinating, is of a soft or congestive type, the treatment outlined will in almost every instance relieve the patient of all distressing symptoms. Where there is unquestionable fibrous hypertrophy of the prostate, where the gland is hard and unyielding, there is but one remedy, namely, prostatectomy. Fortunately, however, this form of prostatic enlargement is far less frequent than the soft variety. I will report one case, which is illustrative of many others that have come under my care.

Prof. W. H. Music teacher, age 67. Had trouble with urinating eight years before. Had not drank alcoholics for 25 years. In July, 1911, made a visit to relatives in a neighboring city and while there proceeded to get on a spree. Came home well under influence of whiskey and unable to urinate at all for 48 to 72 hours, and did not know exactly when owing to his intoxicated condition. I was away from home. The physician sent for drew off about

fifty ounces with catheter. His attending physician continued to empty his bladder twice a day with a large curved metal catheter, having great difficulty and frequently drawing considerable blood. He continued for about six weeks, the patient positively refusing to use the catheter himself. I was called in consultation, the physician stating that after frequent attempts that morning, he had been unable to introduce any catheter, and had advised an operation. I had no difficulty in introducing a properly curved metallic catheter, drawing no blood at all, but a quart of urine. Having been his family physician for many years, he placed himself in my charge, with the entire consent of the attending physician. I had him come to my office twice a day, at 9 a. m. and 5 p. m. I emptied his bladder each time and washed it out, irrigating deep urethra with a hot solution of permanganate of potassium or boric acid, alternating them. Every other day I introduced a curved metal bougie, allowing it to remain, in situ, one minute. I *gradually*, very gradually, increased the size of bougie, until I reached his normal size, No. 19 Am. This treatment was kept up two and one-half months. At that time there was no residual urine, he could empty his bladder normally, and has since remained quite well. I administered during this local treatment 1-20 gr. of sulph. strychnine three times a day. The same patient had a similar trouble eight years before this and had been relieved in a similar way. On that occasion he had eight ounces of residual urine, after making every effort to urinate, but the end of three weeks he only had one ounce and in two months none; and remained well for eight years afterward, until he got on his spree.

I write this article not for the purpose of discouraging surgical procedure when it is necessary, for in true fibrous hypertrophy, there is nothing else that ought to be done. But I wish to emphasize the fact that the great majority of such cases is a soft enlargement, vesical congestion and

can be relieved without operation. I also wish emphatically to condemn the ready manner in which so many patients are given a catheter for life.

TYPHOID FEVER IN INFANCY.*

BY O. H. WILSON, M. D., NASHVILLE, TENN.

Eugene S. W., born October 16, 1911, good personal and family history except birth complicated by placenta previa, and from the beginning was artificially fed. Thrived up to present illness. Was fed during summer with condensed milk, with occasional addition of cow's milk when the supply was satisfactory. Spent summer at a resort with no typhoid among the visitors, but some few cases in the village half a mile away. Slight digestive derangement about September 10, from which he only partially recovered, though had no fever. September 24 returned to the city. Began with slight fever and slight diarrhoea on September 26, being then eleven months and ten days old. Fever continued, running about 101 to 104. Rectal temperature with evening exacerbations. Slight diarrhoea with no signs of inflammation and fair digestion. Malarial test negative, urine negative; in fact, absolutely nothing to explain continued temperature. Upon the eighth day the Widal reaction was emphatically positive, thus proving the nature of the infection. The spleen was enlarged, a most typical and rather profuse rash appeared upon the abdomen and thorax. Diarrhoea continued throughout the course of the disease. Tympanitis was marked, the tongue typical; in fact, every classical symptom of typhoid was present, even the peculiar odor. Fever lasted sixteen days, leaving him emaciated and ravenously hungry.

This case is reported because of the rarity of typhoid in early infancy. Holt says he has seen only two undoubted cases under one year of age. I have seen one other though

*Case Report made at regular meeting of the Nashville Academy of Medicine, October 15, 1912.

not as typical, and as it was before the Widal reaction was used the diagnosis was not verified.

Typhoid so early in life, though rare, is not impossible and even these rare cases should emphasize the importance of sera-diagnosis to clear up obscure cases rather than hide behind that much-abused cloak—auto-infection.

THE MORPHINE HABIT SCIENTIFICALLY CONSIDERED.

BY C. E. PATTERSON, M. D., OF GRAND RAPIDS, MICH.

I would say first a true science is absolute law whereby the same cause always produces the same effect. Hence, the getting into the morphine or any other drug habit in reality becomes a true science. It has been said that Mathematics and Music are in reality the only two true sciences we have, but I add that the getting into a drug habit is another, and, if things do not change ere long, will be about as common-place as either Mathematics or Music.

Ignorant China has already taken steps to check the further downfall of her people from this terrible brain-stealing science, but America, alas! is on the advance in this new science, instead of on the decline. Some of my readers will undoubtedly say, "Nonsense" to this statement, but I can only say, "investigate thoroughly and see." Now some might ask "How can I call the getting into any habit a science?" I have said a science was absolute law whereby the same cause always produces the same effect. In reply to the question I would say, and as most physicians know, that to give any narcotic or stimulant drug to an individual for a certain length of time, some longer, some a shorter time, that individual becomes so adapted to that extra key or vibration to which he has been raised by that stimulant that he cannot possibly leave it off without help. Many physicians, not recognizing this law, leave this patient to free himself as best he can, possibly after they have prescribed one of these enslaving drugs for weeks,

and sometimes even for months, and what is the result? A slave to a drug, and soon an outcast to home, friends and society. They apply to their physician for help, but about the only answer they receive to their inquiry will be, Why don't you quit it if you want to? That is about as much as the great majority know about it, and seemingly about as much as many want to know, as I have treated several cases in a public hospital for the express purpose of giving the profession a chance to look on and see it done. And yet, not a single Doctor would venture into a patient's room to question them or me on the case, lest it would be that they might sneak in at some time when I was not there to steal some idea, and I not find it out. The patient will oftentimes ask his physician how he can quit it, and if he can do nothing for it himself, whom he would recommend. His answer will be, as patients have related to me many times: "God only knows, I do not," and the profession says: "There is no cure for it only to quit it." I would say to the profession that even though the profession does say there is no cure, that the profession is certainly mistaken, as there surely is. But to humor the profession in their deluded opinion, let me say to you if you do not think there is any cure and you do not care to learn of one when the opportunity presents, then you might as well know with but small process of reasoning that there is prevention if not a cure. "Snakes never bite those who do not go where the snakes are." One never becomes addicted to a drug who does not take the drug for some length of time. Now, the doctor is the one who prescribes and every doctor should know that a suggestion often repeated, soon becomes an actual fact in the mind of the patient. The Bible says: "As man thinketh, so he is." The Doctor prescribes a narcotic or stimulant and keeps repeating it, and, I would say, no matter whether the patient knows what he is using or not, the subjective mind knows, whether the objective does or not, and it soon begins to call for that stimulant you have taught it to call

for by your suggestion of constantly repeated doses. Now you ask, "How does it call?" It calls sometimes with extreme pain, sometimes by chills or sweats, and sometimes by extreme nervousness, which a patient seems to dread as does the man dread the so-called hallucinations of delirium tremens after a protracted spree on liquor; and just at this point let me say, the most of the cases, if not all of them, of the so-called neurasthenia is nothing but the remnants of some physician's unscientific drug giving. He made the condition himself by repeated suggestion, and the nervous condition constituting what he very learnedly calls neurasthenia, is simply the subjective mind calling for the drug he has now stopped giving, and in parenthesis I would say, a few doses of the opiate left out would cure the neurasthenic, but they would be opium addicts now instead of neurasthenics. A few doctors already know this and are curing neurasthenia with opiates or bromidia. (Have taken their patient out of the frying-pan and thrown him into the fire). What wisdom on the part of the physician, and what deception on the part of the patient! Now some may doubt this great law of suggestion and of the great power it has over the human mind. But, to convince you on some of the minor suggestions of an everyday experience, let me present the case of the stutterer. Find a case that stutters and mock him in all he says for one week and see if you do not stutter just as bad as he does. Why do men hire experts in window draping for their stores? Is it not to create a thought in your mind that you need something you see there exceedingly bad? And the suggestion alone makes you buy things oftentimes that you do not need, cannot really afford, and many times, when the true reasoning comes to you, are sorry you purchased.

Brother Doctors, recognize this great law of suggestion and realize that where you are feeding some patient any narcotic or stimulant and repeating and repeating, you are laying the foundation for a wrecked mind, financial ruin,

an outcast to the world, etc., etc., and then some. And then again, do not stop here but realize that you are only a human being and subject to the same law as the rest of humanity, and Doctors and nurses, I am sorry to say, are no exception to the ones who become slaves to narcotic drugs. And, as I have said before, if you do not know how to cure and will not believe there is such a thing as a cure, do this much for humanity's sake. *Prevent.*

Selected Articles

THE PHYSICIAN DISSECTED.*

BY R. A. WALKER, M.D., WEST MONTEREY, PENN.

There is no nobler calling than that of the physician. To be the student and healer of human suffering and pain places a sincere man in a position of the broadest usefulness. Its trials and difficulties ennoble him, and its triumphs exalt him into the proud place of a public benefactor.

As a rule the medical profession measures up to the demands of its work; men of broad minds, sympathetic understanding of human suffering, and an honest desire to relieve human pain are found by the score in their ranks. The presence of the charlatan and the quack is no more tolerated by the profession itself than the public when once the true character of the impostor is discovered. It can also be affirmed that in dealing with disease and in fighting individual cases of suffering and need, the physician is normally the most hopeful of men; when the keen instincts of his calling demand that a patient shall be buoyed up by hope and inspired by strong resolution, the physician can by a cheerful word infuse courage to the despondent invalid.

In the following pages we propose to consider some of the exalted positions that a physician should occupy in the

*Read before the meeting of the Clarion County (Penn.) Medical Society.

circle in which he moves and to the world at large, in order that he may measure up to the stature of that *ideal physician*, of which the writers on "Higher Medical Criticism" prate and of which the ordinary practitioner knows but little; and incidentally I shall also touch lightly upon the follies of which some of us, I fear, must plead guilty. The ideal physician is a member of a learned guild. He should be above the tricks of petty jealousies of trade. True, he lives by his profession, but he who practices for *gain alone* is only a hireling and *not* a true shepherd of the sheep. If you would attain to this professional ideal, you must be a constant student, keeping abreast of that scientific progress of which, in your community, you must be the exponent. You cannot afford to be satisfied with the knowledge you now possess, but must read, digest, and assimilate the best in the up-to-date literature of your profession, or you will be left behind in this day of rapid transit.

There is something intrinsically bound up with the healing art that makes a man better and nobler for being in it. The men who are weeded out of the profession yearly, who degenerate into quackery or take to some less responsible calling, are those who fail to come up to the world's demands. Perhaps there are many yet who had best change their calling.

The physician should make himself felt in the community as a *moral* force no less than as a practitioner of medicine. He should be distinctly a power there, and whether for good or evil, a power he will be. No one with the education, the knowledge, the opportunity of the physician can help being a potent factor in the life and affairs of his community. It then is all the more needful that he be a man of sterling moral worth; then also if there is one thing more than another in the general make up of a physician needful, it is that he be a gentleman. All cannot be foremost surgeons or scientists. And it is reserved for but a comparative few to become real well-to-do in the matter of worldly means, but every man can so adjust his life and

method of conduct so as to justify the application of the term *gentleman* to him, and, if permeated with the desire to be of use in the upbuilding of his community, and the uplifting of his fellow man, can be a power in the regeneration of any locality in which he locates. The magnificent possibilities for a physician on this line of thought are practically unlimited, as unlimited as the sands of the sea.

To discuss this phase of his life would be a sermon, and we should choose for our text, "Am I my brother's keeper?" There is no sphere in life in which the physician cannot be a power for either good or evil with his patients, for does he not get nearer to their inmost thoughts than perhaps any other individual? He sees them as no other, sees them, for sickness strips them of all shams and conventionalities, of all power to dissemble, and in the moment of their supreme agony he looks figuratively speaking into their very souls.

The assertion is sometimes heard that "doctors are born, not made." This trite saying does not have as much truth in it as some people think. It is no doubt true that many good farmers and mechanics are lost to the world in trying to make doctors out of them, but we believe the main essential in making a success out of the practice of medicine is good judgment and the independent exercise of it. The greatest weakness that we observe in the mass of the medical profession to-day is the deplorable lack of judgment. It is this deficiency that causes the wild opinions promulgated in practice.

Because some physician has had a little better education or more ample opportunities than you, or perchance has written a book, is no reason why you should dwarf your intellect into blind subservience to his opinions and not assert your own good judgment. While specialism undoubtedly makes men very efficient in their chosen fields, yet it does not make them infallible. What is needed among the profession at large is less blind dependence upon authorities and more independent thought among the individual mem-

bers, less thoughtless devouring and belief in anything new in medicine, and more good judgment regarding what we already know. Do not understand me to condemn specialists individually, or as a class. We do not wish to under-rate those who have given application and talent to their calling so as to be efficient, but we make a plea for a more all-round effort in the exercise of personal talents and to combat that blind instinct to follow recklessly the opinions of others, which often results in bringing the profession into ridicule.

Many doctors let their business run in ruts and when they have exhausted the resources of their immediate stock of medical knowledge, rest upon their oars with the comforting conviction that they have reached the limit of medical science and nothing more can be done. It seems never to occur to them that refractory and desperate cases offer a most appropriate field for experimental therapeutics. Here is the opportunity for breaking new ground, for testing therapeutic theories, for increasing our knowledge of drug powers. The men who have originality and self-reliance enough to rise to the occasion are the ones who make all the progress for us. Get out of the rut, read, think, experiment independently,—try all things; prove all things and hold fast to that which is good.

While the physician's opinions are sought on medical subjects, yet he is also invited sometimes to give his opinion on secular matters. But there is a sentiment among the profession, and voiced by the laity too, that medical men should not engage in public affairs; this is a mistake; the practice of medicine does not disqualify a man from the performance of public duties, and the reticence and modesty on the part of the profession has lessened our influence in public matters. The medical profession, if united, active, and aggressive as some other callings, could accomplish wonderful results and reforms, and at the same time enhance measures for its own benefit and protection. Our

profession, the members of which have the entree to every family, could by a word wield an influence that would be irresistible.

The position of our profession is not as prominent in government affairs as it should be, and our claims are constantly ignored. This is our own fault to a great extent, because we have not used the power we hold in our hands. The professional politician neither fears nor respects us as a profession, because we are not united. We often oppose each other in matters that pertain to our common good, thereby nullifying our influence. In recent years, doctors in America are giving more attention to public affairs, and in some States we find doctors serving as Governors, while in many cities they are elected Mayor or Controller, and to many other positions.

But the laity cries, "serve humanity," and let politics and other kindred affairs alone. We believe that by interesting ourselves in public affairs we *are* "serving humanity."

The great Virchow, during the forty-two years active service, was instrumental in revolutionizing the sanitary laws of the city of Berlin. Through the establishment of drainage, admirable water works and garbage furnaces, he did a world of good to humanity by political influence rightly used. Especially is the voice and influence of physicians in the deliberations of educational bodies too seldom heard. In school matters his presence and advice should be of immediate benefit. Too few physicians appreciate the fact that it is their duty to take a deep interest in the welfare of the public school. School boards and superintendents of educational institutes are awakening to the fact that they need the counsel and advice of physicians, not alone in combating contagious diseases, but in the construction and arrangement of their school buildings, proper ventilation, correct hygiene, proper manner of seating so rays of light may be admitted without resulting in injury to the eyesight, etc. For are we not fast becoming a nation of spectacle wearers from this cause alone? Who, so well

knows the dangers that hedge about school life as the physician? How much he could tell teachers about properly grading the children physically, as well as mentally! How to manage properly the precocious, the nervous, the hyper-sensitive and the degenerate—all under the present arrangement herded together under the guidance of an innocent, and I *might* say oftentimes an ignorant teacher, ignorant of the most vital points in the proper management of schools. Physicians have knowledge of these things and should be interested and consulted in reference thereto.

To again return to the consideration of the physician himself, let us ask, what are some of the necessary attributes for a successful physician? There are, in our opinion, more required of a physician than any other professional man. First of all, he should have good health, for without it he can do little, required as he is to withstand the rigors of cold, wet, and heat throughout all seasons of the year; tact to use the knowledge he possesses; promptness in attending calls; sympathy, for the physician who has not sympathy for suffering humanity can never endear himself to his patients. Then add to this cheerfulness, charity, and, if carefully handled, church, lodge and political affiliation can be used as a lever to advantage, but, without tact, these three graces may work to his detriment, if not his destruction.

Of some of the hindrances to success, at the beginning of a young man's life, to my mind, wealth is the greatest hindrance; for in many it begets laziness, carelessness, and a tendency to shirk work in unpleasant weather, because there is no sense of compulsion on his part. Poverty, while a hindrance, may be overcome by grit, energy, and good management. Another great hindrance to gaining and holding the confidence of your patrons is what I call in plain terms "blowing your own horn" *too* much and *too* strong.

The physician who is always on the go night and day when all other doctors in the community are comparatively idle, who passes through epidemics of malignant diphtheria

and scarlet fever and cures *every* case, the doctor that treats *hundreds* of cases of pneumonia and typhoid fever and *never* loses a patient, is generally the doctor, if the *truth* is told, that is incapable of making a correct diagnosis of either disease. Such boosting is, to say the least, in bad taste, and the best people lose respect for the doctor. The too frequent use of technical terms in conversing with the laity can be overdone, and while you may think you are impressing them with your great wisdom, in some cases it creates disgust.

Any man can be an imitator or follower, but it requires a man of thought to beget new ideas. No profession is so given to following *fads* or new ideas before they are properly tested as the medical profession, and I believe the advice we used to have given us in the old poetic couplet still stands good in this case:

"Be not the first by whom the new is tried,
Nor yet the last to cast the old aside."

Before you take up and sound the praise of something new and startling, be sure that it has no concealed plot to subordinate your prerogatives, or that you are not being made the advertising medium for some designing manufacturer.

I now desire to discuss a few points which, to us as country physicians, seem of vital importance, and the opinions I express are my own and I hope will be taken as such, nor shall I consider them binding on anyone of you here present.

The first proposition is, should a physician dispense his own medicine? I say, *yes*, because private dispensing leads to a more exact and intimate knowledge of drug action; it prevents patients' from finding out what they are taking; it prevents substitution and refilling of prescriptions by druggists. It gives you better control over your patients; they see you prepare it; they know no clerk has blundered in filling the prescription; hence, this gives them confidence that will do them good. (And, by way of digression, let me say, while we do not believe in *faith* cure pure and sim-

ple, yet we must all acknowledge faith in the physician, on the part of the patient, is no mean attribute, nor should it be overlooked). The patient must come back, for he cannot get the prescription filled elsewhere. In this way, you keep him under your eye longer. When patients have a prescription, they often give it to a neighbor who is "affected exactly as they were," and it does duty for them many times, where the physician should have had a fee out of it.

The next question is, should the physician treat the clergy free? The doctor's time, service, and medicine is his stock in trade. Why, then, should he be singled out to gratuitously perform service and furnish material for those of another profession? There may be exceptions to this rule, where the minister is retired from active service, or is working for the good of his fellow man without hope of reward; to such a class no profession is more willing to extend aid than the medical profession. But the average net income of the minister compares favorably with that of the doctor, and exceeds that of many of his parishioners who count on paying their doctor's bill, as well as their grocery and coal bills. Do the dry goods merchant or groceryman take their goods off the shelf and give them to the clergy free? Yet this is just what the medical profession does when they treat the clergy free. Besides doing this, they are expected and *do* pay their share towards the minister's salary, wiping out church debts and other expenses of the church.

I believe the practice lessens the respect of the clergy for the medical profession, for whose name do we find more frequently to the end of an endorsement of some patent nostrum than his? Verily, "the laborer is worthy of his hire;" pay your share towards the support of the minister and let him do the same towards you.

The subject of changing location, to my mind, does not require a very great amount of discussion; ministers frequently find that their field of usefulness is enlarged by re-

moving to a new locality, but a change of location is often not productive of good results to a physician. Especially after they have reached middle life, many physicians, for various reasons, have found by sad experience that a change from a country or small town practice to the city has been a serious mistake on their part. With the increase of free dispensaries and other eleemosynary institutions, many physicians in the cities eke out a precarious livelihood compared with the earnings of the ordinary country doctor.

Doctors often do not practice what they preach; they dilate on the necessity of their patients taking a vacation, they expatiate very volubly on the advantages and benefits to be derived, and they stay at home themselves and drive along in the same old rut till incurable disease or perhaps death cuts them down when they should be at their best. Every physician who has worked regularly and conscientiously can afford to take a vacation if he is willing. A vacation does not necessarily mean a long expensive trip by rail or steamer, with the accompanying expense for fashionable clothes and hotel bills. Go out in the woods or on a farm; live with some farmer where you will get good clean, well-cooked food and fresh vegetables, work enough to keep your blood circulating, forget you are a doctor or ever knew any medicine, forget age or that you were ever weary or worried. It will pay you in more ways than one; you will soon get a good appetite, sleep good and feel good, and at the end of your vacation come back to your work with renewed vigor and strength. I assure you your patrons will get along without you somehow, will be correspondingly glad to see you back, and will respect you for trying to take care of yourself. Wear out your life for the community, and it will not add one foot to your movement, nor keep your memory from forgetfulness a single year longer.

Should we prescribe proprietary preparations? I am not prepared to indiscriminately condemn them wholesale; true, a physician should know what he is prescribing and he should prescribe according to the needs of each particular

case. But some proprietaries are better prescriptions than some doctors can write, and better from a pharmaceutical point of view than some druggists can compound. We admire the doctor who is self-reliant and can think for himself, but until all doctors do so, there will be a place in medicine for proprietary preparations.

Have we any "cranks" in the medical profession? Verily, I say unto you, Yes, *lots* of them, and of all the different species of cranks the *medical crank* is the worst. If a discovery is made which appears as if it would help enlighten the troubles of this world, his hand is raised in opposition to its adoption; he opposes the use of antitoxins of all kinds on the grounds of cruelty to dumb animals; he fights vaccination and quotes scripture to prove his assertions. In fact, he is a sprag in the wheels of medical progress, yet he has his use in the world, for he acts as a powerful stimulant to others; his constant determination to prove that he is *always* right pricks his opponents to greater effort in order to show him that this is an age of progress and that there is no place in it for the medical crank.

Has it ever occurred to you, doctor, that you are a solitary worker? Most all kinds of business can be made profitable according to the capital invested and the number of subordinates employed. Not so in medicine; the income is the labor of one person; it cannot be increased by the aid of capital. Years must be spent in attaining the knowledge and skill necessary to the wise treatment of the various diseases, yet at death there is nothing left to be inherited by the family.

No other professional gentleman is compelled to assume so many responsibilities; entrusted as he is with the *lives* of his patrons, he must at all times be prepared for any emergency that may arise. Others may be appalled or terror stricken at some terrible accident or calamity, yet the doctor is expected to know no fear, but to be brave, tender, and equal to all occasions.

The minister, the lawyer, the statesman, are given timely notice of their expected work, but the physician must be ever ready. Irregular meals and hours of sleep, both of which tend to make the average life of the physician shorter than that of other professional men, *again* remind us that our professional services are held in too light esteem by many of our patrons, and are deserving of larger remuneration.

Have you ever thought that every critical case he takes in charge is a problem, complex in its nature, which he must solve? When a patient is hovering between life and death, do you imagine he is taking it easy when sleeplessly, he is searching his books to find perchance some remedy to assist him in his dilemma? Every emotion of pity is aroused; his heart and brain are engaged, and he expends more vitality in this hour than a placid calm life uses up in a year.

But this kind of life *tells* on the physician. Unconsciously his reserve force is being exhausted link by link; he is slipping his anchor, and one day, when he has grown more useful than he ever was before, his anchor is apeak; one round more, it lifts, and he sails away, *never* to return. He has lived his life out; he has expended all that he had of strength or emotion in months where it should have lasted years,—lived it amid suffering and death, too often surrounded by the added woes of poverty and crime, a true minister of mercy oftener than he knew.—*Va. Med. Semi-Monthly*, Oct. 1912.

Editorial.

AS TO AUTOPSIES.

In the *New York World* of October 8, ult., we came across the following:

"Some 200 members of the Associated Physicians of Long Island have agreed to leave their bodies for autopsies or special investigation. It is their wish and expectation that others will follow the example, so that eventually there will be ample means for advancing medical

knowledge. To hasten the coming of that time of abundant autopsies, it is further announced: 'Efforts will be made to obtain a law that will compel autopsies to be made on all persons who die in public hospitals.'

"Against the agreement of the doctors urging the measure there can be no valid objection, though even in their cases it may be that some surviving relative will not like to have the body surrendered to science for inquiry and examination. But against any and all efforts to enact a law requiring autopsies on the bodies of all persons dying in public hospitals there are many objections and there will be thousands of objectors.

"It is true, as the doctors point out, there are differences between autopsies and dissections, but where is the guarantee that in making the autopsy upon a body turned over to them by law the operating physicians will observe the difference? Who is to prevent further dissection if the operators assert they think there are diseased organs other than those examined? And finally, have we not already more medical laws than we properly supervise or enforce?"

The action of the Long Island physicians we most heartily commend. To the query propounded in the last paragraph, we are disposed to make an affirmative reply; and as to the matter of more frequent resort to post-mortem investigation, we think it can be far better accomplished by proper and judicious instruction and education of their clientele by practitioners of medicine. Outside of cases involving criminality, and the bodies of unclaimed persons dying in public hospitals, in our opinion, the right to the disposal of the dead should be left entirely to the wishes and will of the sorrowing relatives.

In more than one instance, in cases involving difficulties of diagnosis or other points of questionable uncertainty, we have made the request for an autopsy, and in no instance has it been denied. The request being made not from idle curiosity, but that in the hope that something might be learned that would prove of value to some one else at some future time, has always been acceded to.

In three instances yet fresh in our memory, the request for an autopsy came from the ones interested, only a short while preceding death, but while still possessed of all reasonable reasoning faculties. One, an able practitioner of medicine, between thirty-five and forty years of age, who had been quite ill for more than a year, and who had consulted quite a number of his ablest colleagues, both at home and abroad, in regard to whose condition there was quite a diversity of opinion; the two others were unmarried ladies, one about thirty, the other about forty years old, both members of refined, intelligent and intellectual families; tenderly and delicately nurtured from their earliest days, each after months of continued illness, recognizing from

the able and efficient counsel that had been brought to consider and advise as to the condition existent that there was more or less obscurity and uncertainty as to the true nature of the case, and while quite rational made the special request that an autopsy be held, in order, as each of them calmly and quietly expressed, "That some knowledge or information might be obtained that would be of benefit to some one else."

Unnecessary, injudicious legislation has always resulted in more harm by far than good. Anatomical material is an essential of medical teaching; yet, on account of rigid enactments pertaining thereto, was developed the crime of "Burking," and living men, women and children were snatched from the thoroughfares of London and "done to death," as the crime of murder was less easy of detection and but little less in its penalty than "body snatching." Furthermore, the rigid enactments in an adjacent state, about a fourth of a century ago, resulted in the body of a son of a former President of the United States, who was also the father of a subsequent national Executive, being found in a dissecting room. Since then the repeal of such legislation and a limited amount of reasonable and more judicious enactments have prevailed, and now there seems to be no more trouble along this line, in that state and elsewhere.

Occasional autopsies, carefully and properly conducted, can and will result in the solution of some of the unsolved problems of medical science and art, and in but few instances will be refused if as carefully and properly requested. We can accomplish more by such methods than by involving the "strong arm of the law." The presence of one or two discrete friends of the sorrowing family or the spiritual advisor may be requested, to see that everything is done decorously and respectfully.

A properly conducted autopsy should be no more mutilating than our present methods of "embalming," to which our people are now almost universally accustomed. But futile arguments alone stands in the way; some of our colleagues are afraid to make a request, fearful that they may offend the family of the deceased, or, can it be that there is a dread that the opinion previously enunciated may be demonstrated as incorrect? Such are not worthy of our grand science and art. In conclusion, let us try and see if we cannot educate our clientele to a proper consideration of the matter rather than invoke additional legislation.

FIRWEIN has been before the profession quite a number of years, and its excellence and great value in bronchial affections has been well demonstrated in the experience of many practitioners.

HE GAVE HIS LIFE THAT ANOTHER MIGHT LIVE!—"GREATER LOVE HATH NO MAN."

A most pathetic incident in connection with the advanced surgery of the present times recently occurred at Gary, Ind., when "Billy" Rugh, October 18, ult., on his hospital cot murmured, "I guess I turned out to be some good after all," and rolled over with his face to the wall and died.

He it was who a few days previously submitted to the amputation of a permanently crippled leg that material might be provided for a skin grafting operation in order to save the life of a young woman he had never seen. The physicians said that pneumonia was the cause of his death, due to the pulmonary irritation resulting from the anesthetic used (ether) when his leg was amputated. Rugh had no known relatives and had come to Gary several years ago, making his living by selling newspapers.

The young woman for whom he was willing to sacrifice his leg and risk his life was a Miss Smith, who had been horribly burned in a motor cycle accident to such an extent that her life was despaired of, unless a large amount of skin grafts could be secured. She is now well on the way to recovery, but was greatly shocked to learn of the disastrous results to Rugh.

Mayor Thomas E. Knotts issued a proclamation on the day of this hero's death, announcing a public funeral to be held on Sunday afternoon, October 20, and practically all the citizens of Gary and many from surrounding towns were present.

No building was large enough to accommodate the crowd, and the services were held in the street. Four brass bands played funeral dirges, six uniformed policemen were pall bearers, and a fire department automobile was the funeral car, while a company of firemen carried the flowers. Mayor Knotts and the councilmen, with bared heads, walked at the head of the procession which conveyed the body to the railway depot, where it was put aboard a train for Rock Island, Ill.

Many women were in the line, which required more than an hour to pass the bier which had been placed in the middle of the street.

Miss Smith was not able to attend, but her father and brothers were in the audience.

CLINICAL CONGRESS OF SURGEONS.

One of the most important meetings of the year will take place in New York City, during the week of November 11 to 16, this being the date of the third Clinical Congress of Surgeons of North America. This congress was organized in Chicago three years ago as a

result of an informal invitation issued by "Surgery, Gynecology and Obstetrics" to its subscribers to attend for a fortnight the surgical clinics of the surgeons of Chicago. The attendance at that meeting was so astoundingly large (more than 1,500) and the success of the clinical phase so great that a permanent organization was effected. The second meeting at Philadelphia last year with its large attendance, thoroughly established the popularity of such meetings and a general demand that New York should be the next meeting place was unanimously voiced by those present. The New York surgeons have entered into the preparations for this third meeting with such enthusiasm as to safely predict that the November meeting will be the largest and most successful surgical meeting ever held. The program which appears in full in the September issue of "Surgery, Gynecology and Obstetrics," shows an attractive array of postgraduate work by the most eminent clinicians of New York City, and affords a most excellent opportunity to "brush up" along all operative lines. The "Navarre" hotel, 7th Ave. and 38th street, will be headquarters for the Missouri Valley men. For further information write Dr. Franklin H. Martin, 31 North State street, Chicago.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

THE HISTORY OF THE VIBURNUM COMPOUND:—The original prescription for this remarkable medicinal compound was written by W. R. Hayden, M. D., of New York City, in eighteen hundred and sixty, but not presented to the profession until 1866. At the time mentioned, Dr. Hayden had a very large family practice in New York City and suburbs, and experienced, in common with all gynecologists and members of the medical profession, the need of a remedy that would prove successful in *Dysmenorrhoea*, and relieve the intense suffering which so many females experienced at their monthly period, and which ex-

hausted and debilitated them long after the flow had ceased.

With this object in view, Dr. Hayden made many experiments, and tried various plants, drugs, and compounds which were reported to be efficacious in *Dysmenorrhoea*, but none of them gave such positive results as were desired and the cases demanded. Numerous preparations of the *Helonias Dioica*, *Caulophyllum Thalictroides*, the *Senecio Aureus*, and *Gracilis*, the *Leonurus Cardiaca*, *Mitchella Repens*, *Tanacetum Vulgare*, *Juniperus Sabina*, *Secale Cornutum*, the *Valerianates*, *Bromides*, and the *Hydrate of Chloral*, and a large number of so-called remedies were tried separately and in combination, with only palliative or partial success in some cases, while in the majority, no decided benefit was experienced. The *Viburnum Prunifolium* (Black Haw) was employed in many cases, and the important fact demonstrated that while it *was not* a reliable remedy for *Dysmenorrhoea*, it was very valuable in *Menorrhagia* and threatened abortion; that it should be prescribed with caution, as some physicians have not always found it safe.

Many medical men have made a mistake by confounding the *Viburnum Prunifolium* with the *Viburnum Opulus*, prescribing the former in cases where it was *contra indicated*. This error had its origin and was set in motion through the medical press by a physician of respectability in Boston, who attempted to enlighten the members of a medical society in that city on the merits of the *Viburnum Prunifolium*, and misled them by his ignorance of the properties and uses of the same.

Dr. Hayden found by his experiments that a combination of the active principles of the *Viburnum Opudus*, *Dioscorea Villosa*, and *Scutellaria Lateriflora*, combined with aromatics, produced almost a *specific* for spasmodic *Dysmenorrhoea*, affording immediate relief in most cases where there was no organic *lesion* or mechanical obstruction. The experience of thousands of physicians in this country (as their testimony published by us proves) have demonstrated the great merits of the *Viburnum Compound* in *Dysmenorrhoea*, and also that it is a most valuable remedy in a large range of cases, where a powerful and safe *anti-spasmodic* and *nervine* are indicated.

The *Viburnum Compound* of Dr. Hayden is second to no other remedy for *Menorrhagia*, *Convulsions*, *Colic*, *Cramps*, *Spasms*, *After Pains*, *Uterine Debility*, *Ovaritis*, *Nervous Irritability*, *Insomnia*, *Mental Depression*, *Cholera Morbus*, and *Cholera*. As a *parturient accelerator* it will be found a most acceptable agent, aiding (*not forcing*) the natural progress of labor, giving tone and strength to the patient without producing any of the unpleasant after effects which sometimes follow the administration of ergot and other agents.

During the past year many of the medical societies have discussed

the merits of the *Viburnum Opulus in Dysmenorrhoea, pro and con.*

Permit us to add a word or two on the same subject. The *Viburnum Opulus* alone will not, nor will any other remedy which has yet been discovered and presented to the medical profession, produce the same amount of satisfaction to physician and patient as the *Viburnum Compound* of Dr. Hayden. *It is perfectly safe. It is agreeable to the taste.. It is effective and worthy of your confidence.*

SELECTION OF A TONIC:—The greater care and thought being devoted to the use of remedies in disease is heartily to be commended and there can be no question but that the vastly superior therapeutic results that medical men are uniformly obtaining today are the direct outcome of the broader grasp of drug action. Take, for instance, the successful application of tonic medication. No physician at the present day would think of administering any potent restorative or reconstructive remedy without paying due consideration to the following essential details:

First. The avoidance of any remedy which from its nature or ingredients would tend to unduly stimulate or excite the higher nerve centers.

Second. The avoidance—except when specifically indicated—of any remedies which suddenly and markedly raise the blood pressure.

Third. The avoidance of reconstructive measures except in rare instances, which do not have a well defined permanence of action, or which must be constantly increased in quantity, or continued indefinitely, in order to secure their beneficial effects.

Fourth. The avoidance of remedies containing drugs which are apt to produce dangerous or toxic effects as a result of some possible idiosyncrasy on the part of the patient.

Careful investigation on the part of the careful practitioner will enable him to see that of all the tonic remedies at his command, Gray's Glycerine Tonic Comp. is one of the few that can be freely employed with certainty that all of the foregoing requirements have been met.

As a matter of fact, clinical experience has clearly demonstrated that one of the strongest features of Gray's Glycerine Tonic Comp. is its practical freedom from any contraindication of age, sex, season or personal idiosyncrasy. It is a thoroughly reliable tonic that accomplishes its effects solely through stimulating the physiologic functions of the body. As a consequence its whole action is to restore a nearer normal balance between physical waste and repair; in other words, the proper nutrition of the whole body. Under its use every function is promoted and helped to do its normal amount of work, with all that this means in the maintenance of physical health and vigor.

GROWTH IN THE USE OF BACTERINS:—Treatment of infectious diseases with preparations derived from corresponding micro-organisms is unquestionably growing in favor. Not only do the bacterial vaccines (or bacterins) seem destined to a permanent place in therapeutics, but their field of applicability is constantly boardening. Proof of this is seen in the growing list of these products announced by Parke, Davis & Co., no less than fifteen of the bacterins now being offered to the profession.

There are a number of reasons for the favor which is being accorded to the bacterial vaccines. In the first place, these products are in consonance with the scientific trend of present-day medication. They are being used with a gratifying measure of success. The method in which they are marketed (sterile solutions in hermetically sealed bulbs and in graduated syringes ready for injection) appeals to the modern medical man, assuring, as it does, both safety and convenience. The moderate prices at which they may now be purchased will tend to give them still greater vogue. And these prices are worthy of note, since they represent a great reduction from those formerly prevailing, amounting, if we are not mistaken, to as much as 60 per cent in many cases. They are announced elsewhere in this journal over the signature of Parke, Davis & Co., and will repay a careful scrutiny.

A MAN IS NO STRONGER THAN HIS STOMACH:—The nucleo-enzymes found in Peptenzyme feed the cells, making it different from all other digestives. It is not enough to do the digesting for the stomach. We should properly feed the digestive cells in order that they may do their own work. See that your prescription reads—Peptenzyme.

Peptenzyme is composed of the nucleo-enzymes of the Salivary, Peptic, Intestinal, Pancreatic and Splenic Glands.

These nucleo-enzymes are the original true ferments, and are not "dragged down" by chemical precipitants—hence their action is distinctly different.

Pancreatin cannot act in an acid medium, nor Pepsin in an alkaline one, while Pepsin in dilute HCL destroys the chemical ptyalin and trypsin. When you add such products to the food in the stomach you are only *temporizing*.

Digestion takes place all along the alimentary tract, and recent scientific researches show it to be inter-dependent. Therefore, the true ferments (nucleo-enzymes), Salivary, Peptic, Intestinal, Pancreatic and Splenic should be used.

That is why *positive* and *quick results* are always seen when *Peptenzyme* is used.

THE INFLUENCE OF THE CHEMIST ON MODERN THERAPEUTICS:—One of the advances of modern chemistry has been to show that cod liver oil possesses more virtue than merely as a convenient means of administering fat to the patient. With a clearer understanding of its chemical construction has come a more just appreciation of the large therapeutic value of its essential qualities. Before modern chemistry had succeeded in isolating the active principles of cod liver oil, the patient whose stomach was unequal to the difficult task (a difficult task even to the normal organ) of digesting a greasy mass, was of necessity denied the advantages of this valuable agent. Unfortunately this was too often the case because the very patient who needed cod liver oil was possessed of a defective gastric organ. It was not until the pharmaceutical chemist made a practical use of his more theoretical colleague's investigations that a preparation of cod liver oil was secured which was freer from fat and which was capable of being digested by the impaired stomach. The most popular of such cod liver oil preparations is easily Cord. Ext. Ol. Morrhue Comp. (Hagee), which contains in palatable form the active principles of the oil, and by means of which the patient may enjoy the therapeutic advantages of the whole oil, and yet be spared the distress inevitable upon taking the whole oil. Cord. Ext. Ol. Morrhue Com. (Hagee) has for many years been put to the severest tests, and no stronger argument in favor of its clinical value may be advanced than that those who have used it longest use it the most.—*Therapeutic Review.*

A VERY GRAVE ERROR:—The experience of many of the best men of the profession, not only of the United States, but abroad, has established the clinical value of antikamnia tablets. Among those who have paid high tribute to their value and who occupy positions of great eminence, may be mentioned Dr. J. Acheson Wilkin and Dr. R. J. Blackham, practitioners of London. They have found these tablets of value in the neuralgias and nervous headaches resulting from overwork and prolonged mental strain, paroxysmal attacks of sciatica, brow-ague, la grippe and allied conditions. Indeed, the practitioner who has such cases as the latter come under his observation, and who attempts their relief by opiates and stronger drugs, when such an efficient and harmless an agent can be used, commits a grave error.

Experience goes to prove that two antikamnia tablets in an ounce of sherry wine, taken every two to four hours, will carry the patient through these painful periods with great satisfaction.—*Medical Reprints*, London, England.

A SATISFYING MAGAZINE:—*Lippincott's* for November is rich in fiction, long and short; and there is also some seasonable matter that is easy to read and worth remembering. The novel is a racy, entertaining detective story entitled "The White Alley," by Carolyn Wells, whose previous novels along these lines—"A Chain of Evidence," "The Clue," and "The Gold Bag"—have had a tremendous sale in book form.

Next to the novel in point of interest is perhaps John Fleming Wilson's astounding paper called "Panama, City of Madmen." "The Little Land Movement," by Forbes Lindsay, has to do with profitable farming on a small scale, which promises to revolutionize the farming industry. Edward Sherwood Mead's financial article this month is called "The Public Service Corporation and the City." Other articles in this issue are "The Passing of the Boss," by Ellis O. Jones; "Science and the Theatre," by Robert Grau; "Table-Tourists," by Helen Coale Crew; and "The Selfishness of Celebrities," by Thomas L. Masson.

The heedfully-chosen short-stories make a captivating group. They are "Adventures of a Recluse," by Eleanor Mercein Kelly; "The Gratitude of Johnny Flynn," by Lowell Edwin Hardy; "Flood-Bound," by Clinton Dangerfield; "The Defalcation of Mrs. Mitt," by Elizabeth Maury Coombs; and "The Tale of a Political Spoil," by J. Sanford Rickards.

There are poems by Witter Bynner, Arthur Wallace Peach, Charles Hanson Towne, James B. Kenyon, W. B. Ridsdale, and Mary Byerley, and some bright epigrams by Warwick James Price. "Walnuts and Wine," the humorous department, offers a generous assortment of jokes, jingles, and anecdotes. "Twentieth Century Travel," the automobile department, is ably conducted by Churchill Williams, while "Investments," the financial department, is in charge of Edward Sherwood Mead, Ph.D. Taken all in all, the November *Lippincott's* is a big, satisfying magazine.

GYNECOLOGIC THERAPEUTICS:—The tremendous growth of gynecology in recent years has been confined especially to surgical therapeutics. Even Skene several years ago regretted that medical treatment of female disorders does not receive its merited attention. The practitioner is, therefore, compelled to rely chiefly on remedies which have been tested by clinicians with years of experience having the best opportunity for observation. The most frequent diseases of women are those that arise from functional disturbances of the pelvic organs. For these we call the attention of the medical profession to *Dioiviburnia*, a combination of vegetable drugs, which has stood the test of many years as an efficient tonic and sedative to the female generative organs.

A SYSTEMIC BOOST:—It is safe to say that the average physician is called upon to prescribe a tonic more frequently than any one other form of medication, unless it be a cathartic. Patients who are patients solely because they are tired, "run down" and generally debilitated, are constant visitors at the physician's office. Such individuals need something that will boost them up to their normal point of resistance and then hold them there: in other words, not a mere temporary stimulation, with secondary depression, but a permanent help to the revitalization of the blood and a general reconstruction. Pepto-Mangan (Gude) is not only prompt in action as an encourager of appetite and better spirits, but is also distinctly efficient as a blood builder and systemic reconstituent. It is pleasant, non-irritant, free from constipating effect and does not stain the teeth. It is thus a general constitutional tonic of positive service in all conditions of general devitalization.

ABORTIVE TREATMENT OF COLDS:—Cystogen-Aperient, 2 to 3 teaspoonfuls to a large glass of water, repeated every four hours, will usually abort a cold if taken as soon as the first symptoms (sneezing, "stiffness," etc.) are observed. After free laxative action has been obtained. Cystogen-lithia or Cystogen in powder or tablets can be substituted for the aperient form. Cystogen, in full doses, enters all of the fluids of the body and its use in the treatment of acute and chronic rhinitis, otitis media, bronchitis, etc., is as logical as the established practice of prescribing it where grenito-urinary antisepsis is indicated.

TREATMENT OF DYSMENORRHEA:—The most satisfactory agent for use in the treatment of the pain occurring before and during menstruation in ovarian dysmenorrhea is Pasadyne (Daniel's Concentrated Tincture of *Passiflora Incarnata*), in dessertspoonful doses every three hours. If a card is addressed to the laboratory of John B. Daniel, Atlanta, Ga., a sample sufficient for trial will be sent to any reputable physician.

AFTER SCARLET FEVER AND MEASLES:—After the acute diseases of childhood there is no remedy that will do more to hasten convalescence than Gray's Glycerine Tonic Comp. Children are particularly responsive to the tonic effects of "Gray's," and it is always gratifying to see the prompt improvement in the appetite, digestion and general nutrition that follows its administration. The palatability and clean bitter taste of "Gray's" make it exceptionally acceptable to children.

PANOPEPTON—*The Food and What it Contains*:—The extractives of beef as contained in the juice of a broiled beefsteak or rare roast beef are highly savory and are powerful stimulants of digestion—of the digestive secretions.

Panopepton contains all these extractives.

The inorganic constituents of food (the ash) are not only nutritive, but are chemical catalysers essential to digestion and assimilation. *Panopepton contains all these*—the potassium, phosphates, etc., of the wheat and beef, and of the digestive glands employed in the process.

Complete splitting is now known to be the "fate of the proteins," and these cleavage products believed to be the proteins essential to nutrition. *Panopepton contains these proteins*, a great part of them in the state of ultimate cleavage in which they are immediately available for nutrition.

ACUTE DIARRHEA OF INFANTS:—*Mellin's Food*, 4 level tablespoonfuls with *Water* (boiled, then cooled) 16 fluidounces. Give one to three ounces every hour or two, according to the age of the baby, continuing until stools lessen in number and improve in character. Milk, preferably skimmed, may then be substituted for water—one ounce each day—until regular proportions of milk and water, adapted to the age of the baby are reached.

This diet is especially serviceable for the feeding of infants with diarrhea for the following reasons: Readily taken, completely utilized, protein-sparing, thus preventing tissue waste. Furnishes sufficient body-heat and energy and supplies enough nitrogenous food to maintain the baby's strength during the critical period. Maltose, the predominating carbohydrate, has the highest point of assimilation and the lowest degree of fermentation of all sugars.

Book Notices

THE CHEMIC PROBLEM OF NUTRITION, (Magnesium Infiltration). 8 vo. cloth, pp. 410, by John Aulde, M.D., formerly Assistant Physician, Out-Patient's Dept., Jefferson Medical College; Demonstrator of Physical Diagnosis and Clinical Medicine, Medico-Chirurgical College; Member A. M. A.; Pa. State and Phila. Co., Medical Societies, etc., etc. Illustrated with four plates. Published by the Author, 1912.

Dr. Aulde in this advanced work devotes his first two chapters of about thirty pages to 'General Considerations,' before taking up in detail "Disorders of Nutrition." He has arranged the topics under appropriate heads for the

purpose of developing the importance and significance of the chemic deviation designated magnesium infiltration, sufficient evidence, scientific and clinical, being presented to confirm the claims advanced.

In his Preface he says:—"While the trend in medical science has been upward and onward, medical art has been vacillating and unsteady, or 'wabbling' in its course—due to lack of fundamental basis—but the *working hypothesis* here presented, together with our knowledge of bacteriology (biology), gives promise of the dawn of a new era upon the medical horizon."

THE BLOOD OF THE FATHERS. A play in four acts, by G. Frank Lydston, M.D., of Chicago. 8 vo. cloth, pp. 241; price \$1.25. The Riverton Press, Publishers, Chicago, 1912.

This very entertaining and interesting play deals with crime and the heredity problem, brings forward strong argument for marriage control and the sterilization of the unfit. After much study along sociological lines, didactically and scripturally, Dr. Lydston has essayed the dramatic form as a most effective means of driving home a social lesson.

He claims that this effort is a plea for marriage control regulation, and matrimonial discrimination; a plea for protection of the unborn, for the sterilization of degenerates, and for the "under dog;" a protest against corrupt and grafting police systems and police persecution of outcasts; also a plea for the salvation of the young prospective criminal; for the elucidation of the layman sociologically; and furthermore, it is meant to be a human document showing that in the conflict between the intellectual man and man the animal, the animal wins, whenever and wherever primordial passion is in the saddle.

Selections

THE DUTY OF THE COMMUNITY TO ITS BACKWARD CHILDREN:—As this is an economic problem, a brief discussion of the rights of the individual and of the duties of the State to its individual citizens cannot be out of order, even in a medical journal. It must be recognized at the outset that it is not in accord with facts to assume that the State has any duties, in the moral sense of the word, toward any individual. The so-called rights of the individual are privileges which have been granted arbitrarily from time to time by the State to certain individuals or groups of individuals, and later extended to wider and wider circles in the community, as the State evolved to higher and higher planes of enlightened selfishness. Moral duty implies personality and, therefore, appertains to the individual only, depending upon the relative degree of responsibility. In the earliest stages of social evolution the unproductive individual was discarded without discussion. As the sense or moral obligation developed, this elimination of the unfit became an unwise State policy, and a tacit recognition of individual obligation was substituted. From that time until the present the care of non-productives has been entirely of an eleemosynary nature. The supply of productives has been sufficient and the others have been ignored as far as possible. Quite recently, however, the State, like other large business corporations, has begun to see the wisdom of utilizing waste products.

This is the only basis upon which the State, as such, can logically enter upon this work, but the more carefully we, as individuals with ethical responsibilities, study this problem, the more fully and clearly shall we see that the normal welfare of the individual and material welfare of the State can best be worked out along these lines. Nevertheless, if the best results are to be secured, there must be no con-

fusion between the duties of the private philanthropist and those of the public office holder, and the impatience of private citizens often delays improvements. In those communities in which a radical form of government has rushed into various so-called Socialistic experiments for the public care of the unfit, the results have been discouraging, if not worse. It is the duty of the private philanthropist to demonstrate to the representatives of the State the economic soundness of the policies which he advocates. It then becomes the duty of the proper office holders to put those policies into operation.

It is in this sense only, that is, from the selfish point of view of economy, that the State has duties toward backward children. Two factors determine the productive capacity of an individual—heredity and environment. The latter is at present receiving much abstract consideration from various students and near-students, which will sooner or later crystalize into something of practical value.

For the individual already more or less marred in the making, the community has in the past supplied rather inadequate places of refuge from the world. We have now reached a stage of development where the wiser citizens are succeeding in forcing upon the State's attention the wisdom of doing something more. They have proved that the ultimate cost to the community of the unfit would be much less under a system which would involve a much greater initial expenditure. In this sense, *it is the duty of the State to supply to each individual that environment which will develop his productive capacity to the greatest possible extent.* It is evident that the actual value of the material wealth which would accrue to the State in return for its expenditure in individual cases would vary widely according to the hereditary endowment of the individual; and it follows that at one end of the scale would be those who would return many fold the initial cost, while at the other end would be those who showed almost no results. The superficially economic plan would be to determine the

line of demarcation between the paying and the non-paying investment and to act accordingly. If it were possible to put the Spartan theory into practice, without any bad moral effect upon the remaining individuals, and literally to remove all those who would become a burden upon the State, the problem might be solved in that way. With our present ethical theories demanding the preservation of all individuals, regardless of their apparent value to the State, what might be called the negative factor must be taken into consideration. That is, it would certainly be a wise economic policy to spend a large amount of wealth and energy in educating a certain class of individuals up to a point where they would, even under expensive supervision, become slightly productive, provided they had been transformed in the process from a dangerously destructive type. The malevolent effects upon the community of the unrestrained, backward child are too numerous to be enumerated here. They begin as soon as the child begins to come in contact with other children, either at play or in the school. In adult life these children make up a large part of our criminal classes. In spite of the laws passed by various States to prevent reproduction, that side of the problem is as yet unsolved. Statistics seem to show that the mentally deficient are increasing more rapidly than the total population. I am personally of the opinion that this belief is erroneous and that it is based upon the more thorough enumeration of later years. Nevertheless, their influence is definitely destructive and they should therefore, be transformed as far as possible into productive citizens.—*Louis C. Alger, M.D., of Brooklyn, in Long Island Med. Jour., Oct., 1912.*

ANTITYPHOID VACCINATION:—Sixteen years ago Pfeiffer and Knolle inoculated two men with killed cultures of the bacillus typhosus, and found in the resulting blood changes evidence that the immunity produced by the inoculation was identical with that which followed an attack of typhoid

fever. From that time to the present experiments have been continued along the same line, and we have now an accumulation of data sufficient to prove beyond a reasonable doubt that inoculation with killed cultures of the typhoid bacillus confers an immunity against typhoid fever which is practically complete and which lasts a considerable time.

To the military organizations of the world belongs the credit for most of the experimentation which has proved this great fact in preventive medicine. Since 1898, when 4,000 British soldiers in India were inoculated, to the present time, antityphoid vaccination has been practiced on a large scale in the armies of Europe and America. At first, owing to defects in the technic of the preparation of the vaccine, the results were not so good as they were later. Recently results have been obtained which are so favorable as to be startling.

Perhaps the most impressive demonstration of the prophylactic value of antityphoid vaccination was given by the Maneuver Division of the United States Army at San Antonio, Texas, in 1911. This division, which numbered 12,801, were all vaccinated shortly before or soon after arriving in camp. Only one case of typhoid fever occurred among them, which recovered; and that case developed before the third immunizing dose had been given. Compare with this the typhoid record of the regiments of the Second Division of the Seventh Army Corps which assembled at Jacksonville, Fla., in 1898, under circumstances quite similar to those in the San Antonio troops except that none of them were given this prophylactic treatment. Among the Jacksonville troops, who numbered 10,759, there occurred 1,728 certain cases of typhoid fever, and 2,693 cases classed as certain and probable, with 248 deaths.

The vaccine used in the United States Army, so Major Hartsock tells us, "is prepared from a culture originally isolated from a spleen at autopsy and which has been under cultivation for years. The culture is now almost as virulent to animals and from the present knowledge on the

subject represents the ideal strain for protective purposes. The strain is capable of producing great quantities of antibodies and on account of its slight virulence the local and general reaction following its use is slight."

The method of inoculation employed in the United States Army is as follows: One-half C.C. of a menstruum containing 500,000,000 dead bacilli is injected under the skin at the insertion of the deltoid muscle, the area having been previously touched with tincture of iodine. A second injection of twice the amount is given after ten days, and a third similar injection after ten days more. Dr. Hartsock considers the danger of increased liability to infection in the negative stage following the inoculation to be negligible.

The symptoms following the inoculation are usually trifling; a red area about three inches in diameter appears around the puncture, with a moderate glandular enlargement in the axilla, lasting from twenty-four to seventy-two hours; and there is usually a slight headache beginning about five hours after the inoculation, with some lassitude and possibly some fever. The general symptoms are over in twenty-four hours in 95 per cent. of all cases. In not more than one per cent. have anything like severe reactions been noted. In healthy persons antityphoid vaccination is an absolutely harmless procedure.

The practical conclusion to which we are driven by the facts now at hand regarding antityphoid vaccination is that all who are liable to be exposed to infection with typhoid fever should be immunized by this simple, safe and effective method. That means pretty nearly everybody. Certainly it means everybody living in a place where there is an epidemic, soldiers collected in armies, all who live in or frequent hospitals, travellers and summer vacationers, and young people generally.—*Edward E. Cornwall, M.D., in Long Island Med. Jour. Oct., 1912.*

NEW USES FOR ELECTRICITY:—Some two years ago a Mr. Newman of Gloucester, England, began a series of experi-

ments to determine the effect of high tensioned currents upon vegetation. Sir Oliver Lodge directed these experiments which consisted of passing through the soil very high potential currents of electricity, connected with meshes of hanging wires, strung over the ground to conduct high tensioned currents. These experiments have been going on in various ways and the result has been a tremendous increase amounting to over 30 per cent in wheat, oats, berries and other grains, grown on soil treated in this way.

Last year the Department of Agriculture began similar experiments with equally astonishing results. A four-horse power engine is used and currents of electricity are passed through the soil, below the surface and a few feet above the ground, are strung with wires that hang down towards the soil, and an electro-static field is thus formed between the two sets of wires. The results, not only show a tremendous growth of grains, grass and flowers, but a complete destruction of all parasites.

Experiments with garden vegetables show not only great growths, but better quality, more savory and better flavored. These experiments are going on and so far no official reports have been made. Arrhenius, a Swedish scientist, has begun some experiments of this kind on animal growth, subjecting the animal to high tensioned currents several hours a day.

Another experiment made in schools is somewhat startling. A large room where fifty scholars were placed was surrounded with coils of conducting wires, constituting a vast solenoid within which the children are situated, like an iron core in the coils of an electromagnet. Through these coils were sent currents of electricity.

Control experiments were carried on in other rooms without electrical currents and the results of six months' treatment were tabulated, of the efficiency of scholars, increase of weight, and height and general mental development. A tremendous difference was noted in the rooms where electricity was used, particularly in the absence of fatigue, with

mental acuteness and interest of the children as well as the teacher. Ozone was very marked in the atmosphere and this may have had something to do with giving increased power and growth. These are only preliminary experiments which in the near future will be published, and apparently will open up a new field for the invisible currents that are just now being put to the service of man.—*T. D. C., in Medical Herald.*

HYPERTENSION—ITS TREATMENT:—In a most excellent editorial on "Blood Pressure and Health," in the *Indianapolis Med. Jour.*, Oct., 1912, Dr. A. W. Brayton concludes with the following practical suggestions, which we most heartily endorse:—

"The causes of high arterial pressure suggests the treatment. It must be in the main hygienic and dietetic, and a return to the simple life of the home and family.

"Of course, drugs will be given—the iodides, the nitrates, the bromides. But these are symptomatic treatments only. The main thing to be done is to be in bed from 10 o'clock p. m. till six a. m.; to eat three meals a day and at home if possible. All Baltimore dairy and other slop lunches should be cut out, and also all Battle Creek breakfast trash.

"All bread should be stale and most of it toasted. Oat meal, toast, an egg, a slice of bacon, a cup of coffee, a baked apple constitute a fair breakfast. It is also well to read when eating, as it takes more time. Dinner between 12 and 2 is the most reasonable hour for civilized people to eat a hearty meal, whether in town, or on the farm. An hour should be taken for the noon meal and it should always be with family or friends—only a beast will go off and eat alone. There should always, for those who smoke, be a good pipe or cigar and this with the coffee and chit chat. The day should be split in two by the noon meal. A "heavy dinner" at 7 o'clock is a barbarism and a very recent sign of national decadence, at least in cities. Dinner or

'supper' at home with one's wife and children is a sign of decency and humanity. Clubs and theaters should all be closed by 10 o'clock in cities.

"Above all other remedies are those of nature—air and sunlight in houses, and offices; decent closets and bath rooms, simple foods taken three times a day; cheerful companionship; joy in one's labor; proper social relationships and gratifications. Such are the means to keep an average blood pressure and avoid hypertension."

THE FUNCTION OF THE COLON:—Physiologists have long debated the use of the large intestine and have come to conclusions as wide apart as the poles. Some there were who thought it no more than a reservoir to store the detritus of digestion till it should be expelled from the organism. Others maintained, because of the presence of the appendix and the bacterial medium which it poured out, that the colon was the chief organ of bacterial digestion. But the use of the X-ray, and the investigations of Folin in regard to digestion in this part of the intestinal canal prove that the functions are chiefly mechanical, viz., storage and periodic expulsion of waste.

Cannon reported in 1902 that he had observed antiperistalsis in the ascending colon of a kitten. Since that time, many others have confirmed his results, and the weight of opinion is that the same thing takes place in man, with consequent thorough mixing of the food, followed with some digestion and absorption. But it must not be forgotten that, under normal conditions, fully 9-10 of the digested food is absorbed in the small intestine.

Past the hepatic flexure, the colonic contents have lost most of their moisture, and are, in consequence, firm and formed. The onward movements here are of two kinds, either in comparatively large masses, or in small portions, which become separated from the rest and are carried directly to the rectum by slow peristaltic movements. When defecation takes place, the entire colon, as far as the splenic

flexure, is emptied, in the average man; but Schwartz (Vienna) had many X-ray tracings showing both descending and transverse portions entirely clear after one act.

These X-ray studies proved also that massage of the abdomen in any direction, as long as it was deep, could produce peristalsis of the great bowel, and so we have now a scientific basis for a therapeutic measure long used in constipation.—*Canadian Practitioner and Review*.

THE OPEN TREATMENT OF FRACTURES:—The treatment of fractures is one of the very oldest surgical procedures in the history of medicine.

The advent of a fairly satisfactory bone plate, together with the X-ray work which has been done in the last few years, require a revision of our treatment of fractures.

The X-ray has shown us how very poor our work has been. We have all been surprised at the good functional results often obtained when the X-ray showed how poorly the work was done and how much better work can be done.

The advent of antiseptic surgery made a wonder difference in the mortality of compound fractures.

Bone surgery is the great field of malpractice suits, and for this, if for no other reason, we should be well prepared to do the best work possible. The people are demanding good results as shown by the X-ray.

A few years ago Mr. Lane invented a steel plate to be fastened to the ends of the broken bone by screws which has proved very satisfactory. It has been found that the plates must be of the very best and strongest material or they will break. No metal is better than steel. The screws are threaded to the head and must fit the plate. They must be one-half inch or more from the end of the broken bone to avoid the splitting of the bone. Holes must be drilled in the bone, and the drill should be the size of the core of the screw. The plate may be laid over the periosteum, which it does not injure.

The ends of the bones may be turned out; when the ends

are in apposition, put back. In compound fractures, instead of scrubbing with soap and water, better results are obtained by using a fresh solution of iodine, one-third the strength of the tincture, or $2\frac{1}{2}$ per cent. This may be used freely in the wound without water.

Faulty technique is the common cause of failure. The screws will not stay in place if infected.

The X-ray should be used in all cases of suspected fracture when there is any doubt. It should also be used after setting each fracture. Retention splints, like plaster casts, should not be neglected even after using the plates.

Some enthusiastic advocates of Lane's plates have recommended them in all fractures. This is probably going to extremes. Fractures which cannot be properly reduced or easily held in place should be treated by the open method. Cosmetic results weigh little against danger to life. Poor functional results often call for interference. The mortality in fractures, even by conservative methods, is much higher than is usually believed. In non-union, and in some cases of delayed union, the open method of treatment is the best. It is still an open question whether an immediate operation should be performed or wait a few days until swelling has subsided a little and a certain amount of resistance is acquired. There are advantages and disadvantages both ways. Each case should be decided for itself.—*Dr. J. T. Artell, Newton, Kans., in Jour. of Kansas Med. Society.*

CAMPBOR PHENOL IN RHEUMATISM:—Chlumsky reports that he has had excellent results in the treatment of rheumatic affections by the application externally of a mixture of 2 parts ground camphor and 1 part phenol, adding 5 per cent alcohol to the mixture. This compounds forms an oily fluid, hardly soluble in water and free from caustic action. The author states that he pours the preparation directly into old wounds without pain to the patient. It has also proved highly beneficial in many cases of erysipelas;

it seems to be especially a poison for streptococci. When used in this indication the mixture sometimes causes a blue discoloration of the skin, which he ascribes to the liberation of the phenol. He cites in particular one case of severe articular rheumatism which did not yield to treatment by salicylates or other measures, and in which morphine was necessary to deaden the pain. He applied the camphor phenol mixture to the points and in twenty-four hours the pain had decreased appreciably, as also the swelling, and within three weeks the patient was cured and has since suffered no recurrence. In mild external processes he applies the mixture lightly with a brush and covers it with cotton. In erysipelas and severely infected wounds he dips cotton in the mixture and applies it directly to the infected skin or wound with a layer of cotton above.—*Zentralblatt für innere Med.*

IF A CHILD IS EXPOSED to measles or to acute anterior poliomyelitis, spray its nose and throat with hydrogen peroxide solution. These diseases are conveyed by the nasal secretions and probably contracted at the same site.—*Med. Standard.*

IN CASE OF GASTRIC HYPERACIDITY relief may sometimes be obtained by the use of belladonna or atropine. Olive oil also checks secretion, and bismuth subcarbonate is a valuable sedative. Non-irritating diet.—*Med. Standard.*

BLODGETT HAS RECENTLY SHOWN that in many cases of the pernicious vomiting of pregnancy there is acetone and diacetic acid in the urine. Relief follows the use of alkalies in a number of cases reported. Try sodium bicarbonate or its combinations.—*Med Standard.*

AS TO FLIES:—United States Consul Brittain, stationed at Prague, makes a report to our State Department, stating that it is useless for American manufacturers of fly paper or fly screens to seek a market in Prague for the reason that there are no flies in Prague to screen out of the houses or to poison after they are admitted. This happy immunity, the consul says, is attained, not by fly-swatting campaigns, which attack the evil at its symptoms instead of the source. The consul reports that all the buildings, pavements and sidewalks are of brick, stone or concrete. "Decayed or decaying vegetable or animal matter is not left exposed." The streets are cleaned several times each day. No open drains are allowed and consequently flies cannot breed in the filth. In short, the places where flies can breed being abolished, the flies disappear.—*Cin. Lancet-Clinic.*

TWO DISCOVERIES ABOUT MEASLES, made by Dr. John F. Anderson and Dr. Joseph Goldberger, of the Hygienic Laboratory, Washington, promise to have a decided influence in our management of the disease hereafter. The first is that the epidermal scales which are shed during the stage of convalescence contain no infectious material and do not serve to convey the disease; the contagion is really conveyed by the secretions from the nose and throat. The second is that lower animals may suffer from measles, monkeys already have been infected. The immense practical value of these observations is apparent. How many people realize that measles is the most deadly of all the contagious diseases of childhood, having exacted a toll of 6,598 lives in the last year reported by the census bureau?—*Med. Standard.*

IT IS TO LAUGH:—A woman in one of the wards in the Rhode Island hospital was informed she had appendicitis and would have to be operated on at once. Much fright-

ened, she reluctantly consented and was conveyed to the operating room.

One of the doctors had commenced to administer the ether and her eyes were closing languidly, when he discovered he had forgotten to inquire if she had false teeth. He quickly removed the rubber cap, and shaking her slightly he said: "Have you anything loose in your mouth?"

Then, as he made a move to put his hand in her mouth, she opened her eyes wildly and exclaimed:

"Nothing but my tongue, doctor, and for God's sake, don't cut that out, too!"—*Mack's National Monthly*.

THE USES OF ALUMINUM ACETATE IN LOCAL INFLAMMATIONS:—Stansbury in the American Journal of Surgery, says that the various treatments of such local congestions as boils, erysipelas, and all forms of wound infection, etc., prove, without further argument, that no one is especially helpful. For instance, the local use of iodine, ichthyol, phenol, bichloride of mercury, and solutions of lead and opium, heat and cold, all have the effect of producing a certain extent of hyperemia and asepsis, but to Stansbury they have been disappointing in their results. A watery solution of aluminum acetate, 1 to 7, has been very much more successful.

The formula in the National Standard Dispensatory for "Liquor Aluminii Acetatis" is:

Aluminum sulphurate (U.S.P.), 300 Gm.

Acetic acid (U.S.P.), 300 Gm.

Calcium carbonate (C.P.), 130 Gm.

Water (distilled), 1000 Cc.

Dissolve the calcium carbonate in the acetic acid, mixed with 200 cc. of water, and the aluminum sulphurate in 800 cc. Mix the two solutions and allow the mixture to stand for twenty four hours, agitating occasionally. Then pour off the clear solution and filter. The solution contains 7.5

to 8 per cent of basic aluminum acetate. It is practically identical with *Liquor Aluminii Acetici* of the German Pharmacopeia.

When prepared, the solution should be perfectly clear. It is to be diluted with distilled water 1 to 7 or 10. Gauze is saturated in several thicknesses, applied directly to the parts and covered with rubber tissue or oiled silk, and a loose roller bandage is then applied. When employed in this way the dressings remain moist and it is not necessary to change them more than once or twice in twenty-four hours. When the dressings are removed the skin will be found whitish and much wrinkled unless the skin is very much congested, as in erysipelas. Stansbury has kept up the application for days and has never noticed any bad effects whatever.—*Therapeutic Gazette*.

THE PATHOGENESIS OF ARTERIOSCLEROSIS:—Arteriosclerosis has been experimentally produced by the injection of adrenalin, or at any rate the main lesions of the disease are apparently reproduced. Cannon, Aub and Binger have found that nicotine in small doses causes an augmentation of adrenal secretion, which throws light on the reason why excessive smoking causes arteriosclerosis. Heavy work stimulates the functions of the adrenals, one of which is to destroy the waste products of muscular activity. Hence the relation of heavy work to arteriosclerosis. Again, febrile infections bear a decided relation to arteriosclerosis because they produce an excess of adrenal secretion.

Thus we have in the adrenal secretion an agent capable of producing, through its selective action on the arterioles, a phenomenon which has become classic, viz., the participation of the vasa vasorum in the morbid process. In the circumscribed or nodular variety of arteriosclerosis the vasa changes are sometimes the only visible lesions, "the primary alteration consisting in a degeneration or a local infiltration about the vasa vasorum." If we recall that the arte-

rioles, whose calibre is reduced or perhaps obliterated by an excess of adrenal secretion, are the terminal arteries from which the vasa vasorum receive their blood to nourish the coats of the larger arteries, the cause of the local degeneration and sclerosis becomes plain; the arterial coats are deprived of sufficient arterial blood to sustain life, and local tissue necrosis occurs.—(*New York Medical Journal*, June 1,, 1912).

PYELONEPHRITIS OF PREGNANCY:—H. R. Andrews states that almost all writers are agreed that the treatment of pyelonephritis of pregnancy should be as conservative as possible.

The general treatment consists of rest in bed, milk diet with plenty of harmless fluids to drink, and regulation of the action of the bowels. Violent purgation must be avoided as being likely to cause miscarriage. Some authorities advise administration of small doses of calomel—for example, grain 1-6 t. d. s.

More special treatment includes administration of diuretics, and urinary antiseptics, alteration of the reaction of the urine, etc. Diuresis is secured by administration of infusion of buchu and sometimes by digitalis. Several writers mention distension of the bladder as causing a reflex diuresis. The author states that he has had no experience of this method of treatment. The most popular urinary antiseptic is urotropin (hexamethylenamine), grains xv to xxx of which may be given daily. As the organisms are growing in an acid medium the urine should be rendered alkaline or neutral. This is done by administration of potassium citrate, grains xx to xxx t. d. s., or of alkaline waters. Antitoxin treatment has been tried with good results. Results of vaccine treatment are disappointing, at any rate in acute cases.

Pain is treated by warm applications to the loins, and if necessary to the abdomen, by administration of tincture

of hyoscyamus m. xxx t. d. s., and by posture. Sometimes great relief is obtained by having the foot of the bed raised 1 or 2 feet, while in other cases a sitting posture may be found to give relief. As a rule the pain soon yields to treatment.

Interruption of the pregnancy should be avoided if possible, and expectant treatment always given a fair trial. Some writers emphasize the increased risk of puerperal infection on account of the septicity of the urine, but in Legueu's 52 cases there was no puerperal sepsis. If both kidneys are affected, and the condition does not yield to medical treatment, and the patient's general condition is going from bad to worse, it may be necessary to empty the uterus.—*British Med. Jour.*, May 18, 1912.—*Merck's Archives*, Aug., 1912.

REMOVAL OF A FOREIGN BODY FROM THE NOSE:—When a foreign body in the nose is not easily removed with forceps remember Felizet's simple method—the injection of warm water in the opposite nostril. Use a syringe or douche nozzle that snugly fits the naris. Begin gently and slowly, then increase the force. As the resistance suddenly ceases, the foreign body is shot out (or at least is dislodged) by the presence of the fluid reflected from the posterior wall of the pharynx.—*American Journal of Surgery*.

TREATMENT OF INSUFFICIENT LABOR PAINS:—Quinine sulphate was used by R. Marek in 126 cases of insufficient labor pains. In nulliparæ, it increased the intensity of the labor pains in 50 per cent.; in multiparæ in about 75 per cent. The customary dose was 0.5 Gm. three times. Berberine sulphate (Merck) was tried in 27 cases (one dose of 0.25 Gm. followed by two other doses of 0.07 Gm. in intervals of 10 minutes). In certain cases, it acts as well as quinine, but in multiparæ, the results are as a rule not so good.—*Wien. Med. Woch.*

ICHTHYOL IN TUBERCULOSIS:—William Odell, M.D., F.R.C.S., of Torquay, read at the International Congress Against Tuberculosis, in Rome, April, 1912, a paper upon this subject. It appears in *Merck's Archives*, June, 1912. Here is the practical conclusion:

"I usually begin with $7\frac{1}{2}$ minims of ichthyol, in half a wine-glass of water three times a day, after food, and gradually increase to 10 drops, thrice daily, and I have very seldom gone beyond this dose. In most cases I have also given malt and oil, and this, with the good and wholesome food provided at the Western Hospital, helps very materially; but, by comparing the results obtained now with those before treatment by ichthyol was adopted, I have no hesitation in saying that the improvement has been due to the ichthyol.

"Taking the whole of the 189 patients treated with ichthyol by me at the Western Hospital, since 1901, viz., 123 recorded in my former pamphlet and 66 in the present paper—disease was arrested in 43; 83 were very much improved; 18 much improved; 27 improved; 6 were stationary; 11 unsuitable, and 1 died—the record appears to me to bear very favorable comparison with that of any other method of treatment, and, for this reason, I have felt it my duty to bring the matter before the Congress now assembled."

This treatment appears to us to be especially valuable where, as is commonly the case, there are tuberculous ulcers of the intestine. We have treated a number of such cases with ichthyol, and with eminent satisfaction. We usually direct the druggist to make up a pill mass of the ichthyol with sufficient powdered licorice, and direct 3 grains of ichthyol so solidified in a capsule. One or two such capsules are given at each dose.—*Editor of Medical Council, Sept., 1912.*

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TAXIS IN THE TREATMENT OF HERNIAE.*

BY DUNCAN EVE, M. D., OF NASHVILLE, TENN.

Some surgeons object to taxis in cases of strangulated herniæ, because it consumes valuable time and frequently does not relieve the patient. It should never be attempted in the development of cases of great acuteness, in cases where strangulation has lasted several days, in cases known to have been previously irreducible, in cases associated with stercoraceous vomiting, or in inflamed or gangrenous herniæ. Taxis possesses certain dangers: Da Costa claims

*Read at regular meeting of the Nashville Academy of Medicine, Tuesday, Oct. 5th, 1912.

it may rupture the bowel, it may rupture the neck of the sac and force the bowel through the rent into the tissues of the abdominal wall, it may strip the peritoneum from around the hernial orifice and force the bowel between the detached peritoneum and the abdominal wall, it may reduce a hernia into the belly when the bowel is still strangulated by adhesions, it may reduce the hernia *en masse* or *en bloc*. By the term reduction *en masse* is meant that the sac has been separated and dislocated, and with the constricted bowel within it, has been forced through the internal ring. By reduction *en bissac* is meant the forcing of a congenital hernia into a congenital pouch or diverticulum. Reduction *en masse* is a rare and dangerous accident.

Then in what cases of inguinal or femoral herniæ is taxis indicated? Von Eschmarch, in his *Operative Surgery*, page 717, states, "If a hernia is strangulated an attempt should always be made to reduce it into the abdominal cavity in a bloodless manner (*taxis*), provided the surgeon can exclude gangrene."

The distinguished Samuel D. Gross, in his great work on surgery of thirty-five years ago, states upon the subject of taxis, see page 589: "The plan which we usually pursue, when called to a case of strangulated hernia, is perfectly easy and simple. In the first place, the patient is put thoroughly under the influence of chloroform, not ether, because this is apt to cause vomiting; secondly, the abdominal muscles are relaxed; thirdly, the tumor is fairly grasped with the hand, and then gently and steadily compressed, not pushed, kneaded, or squeezed by fits and starts. By the adoption of this simple method, patiently continued, I am certain that almost every hernia, however severely strangulated, may be safely and expeditiously reduced."

In another paragraph, Professor S. D. Gross states: "Where the strangulation has existed so long, and the symptoms, local and constitutional, are so urgent as to render it probable that, if reduced, the protuded structures would

suffer serious detriment—then in such a case the best taxis is the knife.”

We cannot agree with these celebrated authorities that taxis as a universal measure should always be employed.

Taxis is justifiable in cases in which strangulation is evidently not complete; cases in which the onset is not acute; cases where there has been previous attacks of strangulation that have been overcome by manual reduction; cases in old persons with large herniæ, where not only the operation itself, but the long confinement in bed, is a source of danger; in cases of very young children that trusses do not give satisfactory support and an operation, on account of the chances of infection, would most probably prove a failure.

Von Bergman claims taxis is justifiable in those cases in which the surgeon reaches the patient immediately after the appearance of the symptoms of strangulation, before the severity of the attack has occurred.

How often is it that patients apply to you for relief who wear trusses that have slipped and as a result an oblique inguinal herniæ has presented itself in the inguinal canal, perhaps down into the scrotum, where symptoms of strangulation are appearing with great rapidity? In such cases an attempt at taxis is justifiable. We have one such patient as described that it would be no exaggeration to state we have reduced his hernia, more or less strangulated a half dozen times, frequently after he had failed by the ordinary measures he had used. It goes without saying this individual should have had a radical operation, which he has repeatedly refused.

Attempts by taxis in suitable cases should be made where the patient is far off from surgical aid—the delay, to suggest the least, in obtaining a skillful surgeon is greater danger than the proper employment of taxis. We might multiply instances if it were necessary to show that in favorable cases of strangulated herniæ taxis is not only in-

licated but the proper plan of treatment, notwithstanding that some surgeons claim it should never be employed.

The late Maurice H. Richardson, in *Park's Surgery*, states that the bloodless "treatment of strangulated herniæ by the use of ice bags, posture, long continued moderate pressure, or palliative measures other than taxis promises so little, and, when minutes are precious, adds so materially to the delay that they should only be mentioned to be condemned." Continuing, he says: "Treatment by taxis is to be recommended in the very beginning of strangulation, for it often succeeds at this time, moreover, the chief danger, rupture of the intestines, is unlikely to occur then, even under considerable pressure. In the later hours of a strangulation, however, when the bowel is swollen by congestion and œdema and is jammed through a tight ring into the sac, taxis is useless and worse than useless, for the bowel may be ruptured even under gentle manipulation."

Taxis is not so simple a procedure as might be supposed. Efforts at taxis may defeat their own aim by reason of being incorrectly applied. A certain manipulation is required for the successful reduction of a hernia, and this manipulation is learned more particularly in reducing the same kind of a hernia on successive occasions. In general, it is important to learn the fact that reduction by taxis is not a process of pushing. Inward or backward pressure toward the ring is generally the least likely of all efforts to reduce the strangulation. The effective motion is one which may be described as a pulling away, combined with a squeezing together of the mass laterally. The whole mass should be grasped by the hand with as smooth a hold as possible. If it is large it should be held by the palms rather than by the fingers. The mass being held in this way, it should be pulled gently away, as if to draw down more hernial contents. This tends to unfold and disengage rather than to cause further kinking of the bowel. At the same time, steady but light compression laterally of the whole mass

should be made. This tends to empty the engorged blood vessels and to expel whatever may be contained in the lumen of the intestine. It is rare that reduction is immediately accomplished. The greatest hope of eventual success comes from gradual application of the force just described, especially the compressing force, until the vascular distention is reduced. General anesthesia is usually needed, especially if the abdomen is rigid. After a few moments of steady compression the direction of the pull can be varied, with the object of finding the direction of the canal. In successful cases the first encouraging sign is generally a gurgle felt or heard—this noise signifying that something has passed back into the abdomen, and this something is more likely to be the air or fluid in the intestine than the intestine itself. After several repetitions of this gurgle of reduction it will usually be noticed that the tumor decreases in size, and not uncommonly it slips back at last suddenly, like an ordinary reducible hernia. Understand that such taxis requires great gentleness, skill and patience.

The posture of the patient may assist reduction, or may even accomplish it alone through the action of the force of gravity. The hips must be elevated, by which means the blood current and fecal flow will be diverted from the parts. The dependent viscera also tend to gravitate towards the diaphragm, away from the inguinal or femoral canals. In applying taxis to a femoral or inguinal hernia, flex and abduct the thigh of the affected side. In direct inguinal herniæ we must remember, after going through the plan already described, pressure should be made upon the tumor backwards and a little upwards; in oblique inguinal it should be upwards, outwards and backwards, and in femoral herniæ it should be downwards until the hernia enters the saphenous opening and then backward toward the pubic spine.

Taxis should, as a rule, only be applied for a few minutes; if this is unsuccessful the patient should be placed under an anesthetic, and should the bowel not then readily

slip back on again gently trying taxis, an operation should at once be proceeded with before the patient is allowed to recover from the anesthetic.

The length of time must vary in different herniæ. It should be remembered that taxis is more successful in recent than in old femoral herniæ and more successful in inguinal than in femoral.

If taxis is successful, put the patient to bed, apply a compress and spica bandage to the thigh and abdomen and allow no food, merely permit him to take a little hot water for the first twenty-four hours, then keep him on a liquid diet for several days and not until the end of a week give solid food. Do not disturb the bowels for a few days, but if they have not acted when four or five days have elapsed after the operation, give a saline cathartic and an enema. There is usually a spontaneous movement within twenty-four hours.

As a rule or routine method we do not advise taxis, still there are certain concrete cases in which this method is distinctly indicated and should be applied. One should always be prepared for operation in any case, provided the hernia proves irreducible.

INDICATIONS FOR ABDOMINAL CÆSAREAN SECTION, WITH ESPECIAL REFERENCE TO COMPETING METHODS.*

BY H. N. TIGERT, M. D., OF NASHVILLE, TENN.

Cæsarean section is perhaps the oldest abdominal operation known to surgery. The history of the operation may be said to extend over three distinct periods, the first lasting from the earliest times to about the beginning of the sixteenth century. During this period, the operation was occasionally performed upon pregnant women after death

*Read at regular meeting of the Nashville Academy of Medicine.

with the hope of saving the child. It is extremely improbable that it was practiced upon living women during this period.

The second period extends from the year 1500 to 1876, when Porro advocated amputation of the uterus after Cæsarean section, and sutured the cervical stump into the lower angle of the abdominal wound, thus treating it extra-peritoneally. Prior to the Porro operation, the uterus was simply incised and the child extracted, no effort being made to suture the uterine walls, the contraction and retraction of the organ being relied upon to check hemorrhage. As would be naturally supposed, most of the women perished from hemorrhage or infection.

The third period, or the period of modern Cæsarean section, may be said to date from the Porro operation until the present time. In 1882 the operation received considerable impetus because of an epoch-making article written by Saenger, in which he advocated accurate suturing of the uterine incision. Prior to the work of Porro and Saenger, the operation was attended by a frightful mortality. In 1867 Meyer collected 1,605 cases from the literature, showing a mortality of 54.4 per cent., while eighty cases performed in the United States prior to 1878 showed a mortality of 52.5 per cent. Budin reports that not a single successful Cæsarean section was performed in Paris from 1787 to 1876. With these facts before us, it is little wonder that the operation should have been abhorred by surgeons, and regarded as a *dernier resort*.

The improved technique of Porro and Saenger, combined with modern aseptic principles, has entirely changed the story. The attitude of modern surgery toward the operation is reflected in a statement made by Dr. Reuben Petersen, of Ann Arbor, Mich., who says: "Given a clean birth canal, favorable surroundings, and an operator accustomed to abdominal and pelvic work, an abdominal Cæsarean section should not carry with it a mortality or

morbidity greater than that accompanying a non-septic abdominal gynecological operation." Dr. Lewis S. McMurtry, of Louisville, says: "It is established that the primary Cæsarean operation in skilled hands has a mortality quite as low as uncomplicated ovariectomy and clean hysteromyomectomy." The safety of the operation in selected cases is fully demonstrated by Dr. George M. Boyd, of Philadelphia, who reports in the *American Journal of Obstetrics*, March, 1911, twenty-seven cases of Cæsarean section without maternal mortality and but one fetal death; and also by Dr. O. Paul Humpstone of Brooklyn, who reports in the same journal for May, 1911, twenty-five cases of Cæsarean section without either maternal or fetal death.

The indications for Cæsarean section may be either absolute or relative. The indication is absolute and the operation imperative when there is a living child and a deformed pelvis with a true conjugate diameter of less than $6\frac{1}{2}$ centimeters ($2\frac{5}{8}$ in.) However, it is well to bear in mind that it is not so much a matter of the exact dimensions of the pelvis that constitutes an absolute indication in a given case, but it is entirely a question of the relation of the pelvis and the fetal head. Often too little attention is paid to the size of the fetal head, but it is quite obvious that the passenger as well as the passage way must be considered. In other words, a woman may have a pelvis with *conjugata vera* under what is usually considered an absolute indication, and because of the small size of the child have a spontaneous delivery. On the other hand, another woman may have a pelvis only slightly contracted, and Cæsarean section will be indicated on account of the obstruction offered by a very large child. It, therefore, follows that every case must be judged upon its merits. Indication may be said to be absolute when tumors block the genital tract, or any other pathological condition of the genital canal exists which renders delivery *per vias naturales* impossible.

Indication for Cæsarean section may be said to be relative when the conjugata vera measures from $6\frac{1}{2}$ to $8\frac{1}{2}$ centimeters. This latter offers by far the most frequent indication. In this class of cases, a choice must be made between Cæsarean section and certain other procedures, which may be regarded as competing methods for preserving the lives of both mother and child, viz.:

(1) In early cases one may resort to the Induction of Premature Labor. Or one may practice:—

(2) Delay until labor has demonstrated the resources of nature.

If the latter course is pursued, in a few cases spontaneous delivery may occur. If not, the following alternatives present themselves:

- (1) Version.
- (2) High forceps operation.
- (3) Symphyseotomy.
- (4) Pubiotomy.
- (5) Craniotomy.
- (6) Cæsarean section.

Cæsarean section is also indicated in cases of puerperal eclampsia, when rapid delivery is necessary and the cervix is rigid, and not easily dilated, since the mortality of elective Cæsarean sections in this class of cases is far below that of accouchement force under the same conditions.

Cæsarean section is the treatment indicated in certain cases of placenta previa, especially in placenta previa centralis, when the cervix is undilated.

It might be profitable at this point to enter into a brief discussion of the various other operations advised for the same conditions.

The induction of premature labor is not always possible, inasmuch as many cases are not seen sufficiently early. It adds a slight increase of danger to the mother, and a very material risk to the infant. The earlier the interference, the greater is the risk to the infant, and inasmuch as most

infants born before the thirty-sixth week of gestation have but a slight chance of surviving, even with the aid of an incubator, one is hardly justified in inducing labor before the thirty-sixth week of pregnancy.

According to Fry, "Beginning at the twenty-sixth week, the case should be tested weekly to see that the head can be pressed down into the inlet. If it can be carried on in this way to the thirty-sixth or the thirty-seventh week, labor may be induced. If engagement cannot be made successfully before that time, it is not, as a rule, a proper case for the induction of premature labor. If the disproportion be decided, it is a case for elective Cæsarean section. If not decided, it may go to full term, and after labor pains have been in progress for several hours, it may still be a proper case for section unless there is good assurance of successful delivery through the natural passages.

"Whether labor has been induced or is spontaneous, the case should be conducted along such lines that the patient will be in favorable condition for Cæsarean section should it prove advisable. Few examinations should be made, and these with the most rigid aseptic precautions. In case moulding and engagement have occurred, and the conditions give promise of successful forceps delivery, the woman should be placed in the Walcher position, and the forceps employed. If failure results, and the efforts at artificial delivery have not been protracted, the course of action should be guided by the condition of the infant. If its life has been seriously jeopardized, or if dead, craniotomy is indicated. If the heart sounds of the infant are good, and there is hope of saving it, pubiotomy might be considered."

On this point Allen says: "In comparing Cæsarean section with induction of premature labor, no doubt there is reason for considerable difference of opinion, but my observations in Leopold's clinic, as well as my own experience, lead me to prefer the former in most instances, although in some the latter will undoubtedly prove very satisfactory."

The induction of premature labor comes in competition with difficult forceps operations rather than with Cæsa-rean section. The interruption of pregnancy a little before full term does not make so much difference in the size of the child as it does in the mouldability of the head, for at this time the sutures and fontanelles are wider and the bones softer, so that the head is more capable of being adapted to the pelvis.

Delay should be practiced and nature allowed to take its course in cases where the disproportion is not very great, and where there is a reasonable chance for delivery by the natural passages. In this class of cases not a few will result in spontaneous delivery, notwithstanding the difficulties. Fry says: "If failure results, version and axis traction are held in reserve. Interference by either of these methods should not be attempted unless there is every reason to expect a successful issue. Failure jeopardizes the chances of subsequent abdominal section. In deciding between version and high forceps, the choice should be guided by the experience of the individual operator, some preferring one and some the other. Version is contra-indicated in the justo-minor pelvis as a rule. Some obstetricians perform version if the head be movable above the inlet, and the high forceps operation if engaged."

In cases where the head has failed to engage after a full test of labor pains, or where the head cannot be forced into the pelvic inlet under chloroform, it would seem unwise to attempt either version or high forceps operation. Under these circumstances, section will undoubtedly give better results. It is needless to say that in a slightly contracted conjugata where high forceps is attempted the woman should be in the Walcher position. In regard to this class of cases, Dr. Reuben Petersen says: "I do not favor high forceps as a treatment of minor degrees of pelvic contraction. I think it is one of the most dangerous operations for both mother and child that we have in obstetrics. Versions

are a little better, but not much." Dr. Jos. B. DeLee says: "Regarding high forceps and version in contracted pelvis, I am using both less and less, as they are very serious operations for mother and also for babe. I avoid them by inducing labor, or by Cæsarean section." Dr. E. G. Grandin says "Version would be my choice with head not engaged, cervix dilated or dilatable, membranes unruptured or just ruptured. High forceps, head not engaged, I never counsel." Dr. E. Gustav Zinke says: "If in a given case I cannot deliver the patient with any degree of assurance of safety with the high forceps or version, I prefer to do a Cæsarean section." Dr. Franklin S. Newell says: "Personally I prefer the abdominal route in all cases in a condition to go through an operation where there is any reasonable doubt about the ability to abstract a living child through the pelvis, for I believe in proper hands the prognosis of Cæsarean section in proper cases at least is no worse than that of version or high forceps."

When it comes to a question of choice between version and high forceps, it is well to bear in mind that if high forceps is attempted and fails, version may subsequently be done, whereas if version is performed and fails, a destructive operation becomes imperative. From the above opinions, it would seem that many cases of minor degrees of pelvic contraction, now treated by version and high forceps operations, and resulting in high mortality to the infants, and with considerable mortality and morbidity to the mother, might be more properly treated by section. I would not have it understood that I am advocating Cæsarean section as a substitute for either version or high forceps operations, in properly selected cases, but that in cases of minor degrees of pelvic contraction where these methods do not hold out reasonable hope of success the results would be better with elective Cæsarean section. Reynolds says: "All obstetricians now agree that real difficult high forceps and versions are more severe operations than a primary Cæsarean section, and it may be laid down

as a general rule that when in previous labors intra-pelvic operations performed by competent men for mechanical obstacles have resulted in still births or extensive damage to the mother, the primary section may be considered as indicated. In doubtful cases, individual judgment must be used. In multiparæ, the histories of previous labors will be of great assistance in reaching a decision." Warren says: "Under any or all of the organized methods of delivery, the mother's life is not immediately hazarded. On the contrary, all methods but one are distinctly hazardous to the child. To save the child, Cæsarean section must have first place. In elective section its life is practically assured; in compulsory section, its life depends not upon the section, but upon the character of previous attempts at delivery. All experienced obstetricians should agree that a difficult high forceps extraction or late podalic version is certainly more dangerous to the mother than a laparotomy, and much more so to the child, even when labor is conducted under the most approved technique by an expert." Poole is of the opinion that "It is a mistake to attempt version and breech delivery in any case where it is deemed unsafe to draw the head through the pelvic cavity with forceps. In such cases, the Cæsarean has much over other operations, in that it certainly saves the child, inflicts no more (and unusually much less), injury upon the mother." It is undoubtedly true that many women are severely mutilated and suffer much permanent morbidity and that many children are unnecessarily sacrificed because obstetricians attempt exceedingly difficult or almost impossible procedures when Cæsarean section should be selected.

Symphiseotomy is essentially a surgical procedure. Unfortunately, it is attended not unfrequently by serious complications, such as injury to the bladder, infection, tearing of the anterior vaginal wall, severe lacerations, and occasionally by more or less serious hemorrhage. In many cases it will be found that even after separation of the pubic bones forceps operation will be attended with serious

difficulty. The operation is followed by a most tedious and difficult convalescence, and not a few are more or less permanently injured by it. At one time this operation came into considerable favor, but soon fell into disrepute. If one is forced to make a choice between symphyseotomy and pubiotomy, I think the latter operation should undoubtedly be adopted. Both of these operations have for their aim the enlargement of the pelvic ring and after all do not deliver the child, which must be dragged through at considerable risk following the operation. Both these operations are attended by considerable mortality. Bill reports a maternal mortality of 5 per cent. after a series of pubiotomys, whereas 157 cases, collected from several competent operators, showed a fetal mortality of 17 per cent. Henkel states that at the present time the maternal mortality following these operations is between 6 and 7 per cent. These facts being true, there is no doubt but that elective Cæsarean section will afford much better results.

Symphyseotomy and pubiotomy will be found useful when one is confronted with a choice between one of these and craniotomy upon a living child. Pubiotomy might be selected in certain cases where the facilities for Cæsarean section could not be had. It also has perhaps a field of usefulness in certain cases of undoubted uterine infection incident to attempts at delivery.

Craniotomy comes less into competition with Cæsarean section than perhaps any of the other procedures mentioned. It is contro-indicated when the true conjugate is less than 5 $\frac{1}{2}$ centimeters. In such cases, even if the skull be crushed, the extraction of the child is attended by greater maternal mortality than Cæsarean section. It may be resorted to after some prolonged labors, failure of version or high forceps, the infant being dead or dying. The maternal mortality after craniotomy, according to most authorities, does not compare favorably with that of Cæsarean section.

The decision between any of the above mentioned pro-

cedures and Cæsarean section in many cases will rest with the individual judgment of the surgeon. Many surgeons testify that they seldom regret electing section, whereas they often have cause to regret having elected any of the others.

Time will not admit of a full discussion of the indications for Cæsarean section in eclampsia, further than to say that it will undoubtedly give the best results in the virulent cases where immediate delivery is demanded, the cervix rigid, and especially if the patient be a primipara. I think it will be conceded by all that this class of cases treated by accouchement force will yield both a frightful maternal and fetal mortality, even in the hands of the most expert, and that it should be avoided whenever possible.

Section will undoubtedly yield results in placenta previa centralis, if the woman is operated on before she is exhausted from hemorrhage, and before infection occurs. On this point, Condon says that in his mind there is no doubt but that cases of placenta previa centralis, when the operation of Cæsarean section is done early, before the woman is exhausted from hemorrhage and before temporizing measures of various kinds are resorted to, the percentage of mortality can be cut down to as low a figure as ordinarily attends a simple laparotomy. The infant mortality is greatly decreased by section.

It is not within the province of this paper to enter into a discussion of the relative merits of the different types of Cæsarean section which have been instituted to meet certain exigencies, usually infection. It is generally recognized by all surgeons that the results of Cæsarean section vary directly according to the time of operation in reference to labor. This point is strongly emphasized by Reynolds, who analyzed 289 cases. In this series of cases, a mortality of 1.2 per cent. was yielded in those operated on prior to labor, whereas a mortality of 10 per cent. was experienced in those operated on late in labor. Routh, of

London, collected statistics from 1,282 cases performed by 100 competent obstetricians and gynecologists, and found that where there had been repeated vaginal examinations, or where attempts had been made at delivery the mortality was 34.4 per cent.; in cases where the patient was in labor and the membranes ruptured but with no attempt at delivery the mortality after Cæsarean section was 10.8 per cent. In cases where the patient was not in labor, with the membranes unruptured, the mortality was 3.6 per cent. In selected cases, with unruptured membranes, and beginning labor, the mortality was 2.2 per cent.

These figures conclusively show that repeated examinations and attempts at delivery result in sepsis in a large number of cases, and that sepsis in turn means a high mortality. This being true, it behooves every obstetrician to thoroughly familiarize himself with the indications for Cæsarean section, that his patients may receive the benefits of the operation before vain and useless efforts at delivery have jeopardized their chances of recovery.

Obituary.

LYNN BOYD GRADDY, M. D.

Dr. L. B. Graddy, so well and widely known in Nashville and vicinity, as well as elsewhere, died at Lexington, Tenn., November 9, 1912. He was one of the most eminent specialists in diseases of the eye, ear, nose and throat in this country, and his work in plastic surgery was as well-nigh perfect as was possible.

Dr. Graddy was born in Marshall county, Ky., in October, 1859, and came to Lexington when a boy. In 1881 he mar-

ried Miss Harmon, a niece of Dr. W. H. Harmon, of Lexington, by whom Dr. Graddy was educated and with whom he began the practice of medicine. Dr. Graddy subsequently went to London and after studying for a period there he returned to this country and settled at Omaha, Neb. While there he was associated with Dr. Harold Gifford, one of the most eminent specialists in the country. After some years' practice in Omaha, Dr. Graddy again went to Europe, where he studied further in the European clinics. He returned to this country in 1895 and immediately began practice in Nashville, where during the last sixteen years he had built up a practice second to none in the South. For twelve years, or until the amalgamation of the University of Nashville with Vanderbilt University, Dr. Graddy occupied the chair of eye, ear, nose and throat, at the former. When the amalgamation was accomplished he resigned his chair. Some months ago he suffered a general breakdown, due to overwork. Hoping to recuperate, he went to San Antonio, Texas. Experiencing no relief there, he left San Antonio and went to Hot Springs, Ark., where his condition was somewhat improved. He came to Lexington in October, last, and continued to improve, until about two weeks ago he was partially paralyzed. Since then his condition was regarded critical until the date of his death. Dr. Graddy was at one time president of the Middle Tennessee Medical Society, and was a former president of the Nashville Academy of Medicine, and a valued member of the Tennessee State and American Medical Associations. At the regular meeting of the Academy of Medicine on the night of November 14, the entire session was devoted to "memorial services," during which the usual resolutions were adopted, and appropriate remarks were made by his former colleagues and associates.

Dr. Graddy is survived by his widow. No children were born to the union. Several brothers and sisters also survive him.

Editorial.

CLINICAL CONGRESS OF SURGEONS OF NORTH AMERICA.

While quite a number of meetings of medical men have become matters of record during the now closing year one of the most important and widely reaching in its beneficent results was the third Clinical Congress of Surgeons, held during the week beginning November 11, in New York City. Many of the active, working surgeons throughout the country have been brought into contact with some of the leaders and accepted authorities. It was in every respect a most unqualified success, and the attendance was notable, both from the members in attendance (over 2,600), and the high standard of the enthusiastic visitors.

The amount of clinical and laboratory work done was immense, and seldom if ever has any organization had a meeting that was more satisfactory and valuable in its results. The address of the retiring president, Albert J. Ochsner, of Chicago, was full of all that goes to stimulate man to higher scientific ideals and more study in all lines. He dwelt on the significance of the congress, its humanitarian benefit, its benefit to all of the members and the positive element of advance in surgical knowledge and science, which must surely result in all such efforts. He said that the large attendance at the congress was a great inspiration. New York had always been a surgical center, but never more so than at the present moment. There was a time when wealth, victory in combat, or personal aggrandizement was the measure of man's greatness, but now personal service was the prime element of achievement. About a half century ago teachers grasped this fact and impressed upon their pupils that education must include ethical development. A willingness to render service was more profitable to him who received than to him who gave. If they were here only to improve themselves personally, this congress was a failure, but if it gave better service to the people, then it was a useful element in American progress. Many important facts would be carried by the men to their homes all over the country, which would be utilized for the welfare of the public. Among the younger men there were surgeons who were doing excellent work and this congress gave them an opportunity to demonstrate their methods. They thus learned to appreciate each other's work and were stimulated by mutual comparison to do away with provincialism. He felt

confident that witnessing the clinical work would stimulate them to a greater amount of scientific reading. The great surgeons of this country had very generally acquired their knowledge and skill after leaving medical school. If one should select ten men who rank highest, not more than three or four would be found to have a university education. It was the men who had been inspired and who worked constantly who had risen to high rank. Better opportunities would be provided for the next generation. After expressing his appreciation for the honor conferred upon him in being president of the strongest body of men in the profession, he said it gave him great pleasure to present his successor, a man who had done much—in fact, no one had done quite so much as the president-elect—for the development and advancement of this congress, Dr. Edward Martin, of Philadelphia.

Dr. Martin then introduced some of the visiting delegates, among them Dr. Otfried Foerster of Breslau, Germany; Prof. W. Arbuthnot Lane, of London; Dr. J. B. Murphy, of Chicago, ex-president of the American Medical Association; Dr. Robert F. Weir, of New York; Dr. Abraham Jacobi, the present president of the American Medical Association, and Dr. John A. Witherspoon, of Nashville, Tenn., the president-elect of the American Medical Association, all of whom made brief informal remarks.

The following editorial reference to the very notable meeting we get from the *New York World* of November 14th ult.:—

Among the shows and exhibitions periodically held in New York, horse shows, automobile shows, art, industrial, scientific or economic shows of every description, is there one comparable in features of genuine interest with the surgical show now in progress?

In scores of clinics and operating-rooms throughout the city, hundreds of difficult and delicate operations have been daily performed for the benefit of the visiting surgeons and in demonstration of the most advanced methods of surgical treatment. Veins have been transplanted, muscles spliced, stomachs removed, the inner recesses of the chest explored by the surgeon's knife with precise accuracy, and new marvels wrought which can only heighten the popular respect in which the art of the surgeon is held.

But of deeper interest than the operations is the presence of more than 2,000 surgeons from all over the country, many of them distinguished, to watch them. That this number of doctors should be willing to take the time from their practice, and incur the expense necessary to keep in touch with the progress of their profession, is significant of a rare devotion to it. It gives proof of an alertness which helps explain why the practice of surgery in this country is in its present high state of development.

In effect, the clinics held in connection with this annual congress of surgeons constitute a post-graduate school of instruction which is of prime importance in elevating standards throughout the profession.

THE TRUTH ABOUT OYSTERS.

The popular tendency to exaggeration is illustrated in the case of the recent attacks on the wholesomeness of oysters. There have been some instances in the past fifteen years in which illness was ascribed to eating oysters, but in most of these, where circumstances permitted a thorough investigation, it was found that the accusations against the oyster originated in the imagination, and, in one or two cases at least, to a desire to attract public attention on the part of persons who placed the matter in print.

The real facts concerning oysters are that a large proportion of the foods and drinks of which we partake every day are more likely to be unwholesome than oysters, because oysters are now principally grown in the deep, pure waters of the large bays and sounds, where they are continually swept by the clean, salt water currents. These grounds are miles from land and are remote from all sources of contamination. Not one bushel of oysters in one thousand has any chance to become contaminated.

It is no longer permitted to market oysters from the grounds formerly used in the vicinity of large cities. Bacteriologists are employed by state authorities who examine the oysters and the waters where they grow, and certificates are issued covering only such grounds as are suitable. Wherever the standard of purity is not fully maintained, the marketing of the oysters is strictly forbidden.

The cause of most of the complaints against oysters consists in the fact that, if a writer can acquire public notice by making a sensational attack upon oysters or any other food, he can thereby place himself in a position of great personal advantage, although to the reckless injury of others. The slogan of "pure food" is a very effective one, and it deserves to be so; but if it is abused in order to build up a personal prominence which can be used for the purpose of financial benefit to its possessor, then the questions need to be carefully scanned in order to make due allowance for exaggeration.

The best authorities pronounce oysters wholesome and easily digested. They are certainly economical, as there are no bones or waste, and the cost is reasonable.

The oyster packing houses, packages and equipment are also inspected, so that those who are fond of oysters can obtain a plentiful supply which are not only delicious and palatable, but are clean, wholesome and easily digested food.

AN ARISTOCRACY OF ABILITY.

No one has ever questioned that "blood tells" quite as much in human beings as in animal life. But by the study of eugenics the right to be well born is now being put on a scientific basis as never before. When the principles of eugenics become a part of common knowledge, their unquestionable wisdom will be sufficient to secure their general adoption.

Lecturing before the American Federation for Sex Hygiene, Dr. Vernon M. Cady said: "Marriages upon these lines will be considered a great honor, and they will be kept untainted by proper stock. We shall then have an aristocracy of ability rather than one of nobility." The speaker cited the Abbott and Herreshoff families as examples of what practical eugenics does in raising the race standard.

By marrying only persons of sound bodies and minds, the family of which Dr. Lyman Abbott is a member, has in three generations produced twenty-five authors, inventors and musical geniuses. In the same time and in the same way the Herreshoff family has produced eleven brilliant boat designers. When the marriage of the unfit is not only discouraged, but actually by law prohibited, there will be produced through the marriage of the fit an "American aristocracy of ability."

From those far distant Biblical days, when Jacob carried out certain principles of "*Eugenics*" in connection with Laban's herds and flocks, stock raisers have also greatly increased their wealth by like measures, and the magnificent steed "fit to ride and run for a king's life has been evolved from the five-toed animal no larger than a fox; the humble donkey and his progeny not only have been an important factor in our own aggrandisement, and settled great England's last contest with the hardy Boers; to say nothing of the now prolific hen, whose fruitage is at this day being sold by the piece instead of by the dozen or gross. By careful attention to eugenics we have an aristocracy along all other lines of "fish, flesh and food," and why not in man?

INTESTINAL TORPOR:—Few ailments coming within the daily notice of medical men are more difficult to correct than the constipation that afflicts those of sedentary or lethargic habits. These patients are usually heavy eaters and engaged in pursuits that too often require excessive mental effort and a minimum of physical exercise. While at first, little or no discomfort may be felt, as time goes on, the depressing influence on all physiologic processes produces more or less derangement of the metabolism, and faulty elimination dams back into the system poisons that work still greater mischief. Soon these patients become confirmed "toxemics" from the constant autointoxica-

tion that results from the retention of perverted and waste products. All manner of symptoms appear, the nervous system particularly showing the greatest variety ranging from simple neurasthenia to the gravest types of melancholia. Indeed, the opinion is growing that defective elimination of bodily wastes is one of the most important factors in the development of many of the mental as well as nervous disorders, that are apparently on the increase.

The great importance, therefore, of preventing waste accumulation by clearing out the avenues of elimination cannot be over-estimated.

Among the means that scientific study and research have brought forward for bowel elimination, Prunoids certainly hold a unique place. This remedy presents advantages that will appeal at once to both patient and physician. Although exceedingly active, Prunoids never set up undue peristalsis; nor do they ever exert a harsh drastic action on the intestinal mucous membrane. Gripping, pain and discomfort are conspicuous by their absence and the effects produced are mild, pleasant but very complete and satisfying. In fact, no other cathartic or purgative at the command of the profession produces more complete and perfect evacuation of the bowels, with less discomfort and distress. The reason for this is evident as the action of Prunoids is studied. Their whole influence is physiological, that is, they act by increasing and promoting natural processes, never by supplanting them. With this so true, it is not surprising that Prunoids never give rise to reactionary constipation, as is the case with most other laxative remedies. Used properly for a reasonable period, Prunoids may be relied upon to restore the bowel functions, overcome constipation and afford pronounced relief from intestinal auto-toxemia.

DANGER DUE TO SUBSTITUTION.—Hardly another of all the preparations in existence offers a wider scope to imposition under the plea of "just as good" than the scientifically standardized Eucalyptol. The most recent fraud practiced in regard to this product is an attempt to profit by the renown of the firm of Sander & Sons. In order to foist upon the unwary a crude oil, that had proven injurious upon application, the firm name of Sander & Sons is illicitly appropriated, the make-up of their goods imitated, and finally the medical reports commenting on the merits of their excellent preparation are made use of to give the desired lustre to the intended deceit. This fraud, which was exposed at an action tried before the Supreme Court of Victoria, at Melbourne, and others reported before in the medical literature, show that every physician should see that his patient gets exactly what he prescribes. No "Just as Good" allowed.

PITUITRIN IN DIFFICULT PARTURITION:—Every physician who has any considerable obstetrical practice owes it to himself and to his patients to familiarize himself with the oxytocic function of Pituitrin. Here is an agent which, according to reports in the medical journals of the Old World (notably of Germany)—if obstetricians adopt it generally, as now seems likely—is destined to rob childbirth of much of its pain and terror. What shall we say of such an agent that fails but once in over a hundred cases in which it is used? And that is just what happened in Dresden, according to a report of Vogt, of the Royal Gynecological Clinic of that city. Vogt adds: "It was not necessary to have recourse to forceps in a single instance in which Pituitrin was employed."

For the benefit of physicians who are uninformed on the subject, it may be said that Pituitrin is an extract of the posterior or infundibular portion of the pituitary gland. While in use for a number of years—chiefly, perhaps, as a hemostatic and heart stimulant—it is only of late, comparatively speaking, that its value in uterine inertia has been fully understood. The product is prepared and marketed by Parke, Davis & Co., to whom inquiries should be addressed for further particulars of this remarkable agent. Not very long ago the company issued a pamphlet in which a number of interesting and surprising case reports were published. We understand that copies of this Pituitrin pamphlet are still available and may be obtained upon application to Parke, Davis & Co., at their general offices in Detroit, Mich.

CARDIAC STRESS—ITS SAFE AND EFFECTIVE RELIEF:—Occasions frequently arise when the practitioner must support the heart in order that brief periods of great stress or over-taxation may not result in permanent disability. For instance, during febrile attacks, or at moments of great mental shock, the heart's action is often temporarily embarrassed. At such times a dependable cardiac tonic is needed, and for a good many years Cactina Pillets have been employed by thousands of physicians with the utmost satisfaction.

This carefully prepared preparation of *cereus grandiflorus* has been found to give the tired heart the exact support and bracing effect required to enable it to meet safely and without discomfort sudden and unexpected drafts on its functional capacity. In the presence of cardiac palpitation, irregular action, tachycardia or the various other symptoms pointing to fatigue and functional weakness of the heart, Cactina Pillets afford prompt relief and rapidly remove the patient's apprehension and fear. Indeed, it is not unusual for a patient to run the whole gamut of the customary heart remedies without

the slightest benefit until he is placed on Cactina Pillets. There can be no question that this remedy is especially effective in the cardiac neuroses and it has the great advantage that it can be used without a single fear of any idiosyncratic or untoward effect, or cumulative action, no matter how long or continuously it may be administered.

The practitioner who familiarizes himself with the virtues of Cactina will be gratified to learn the extent to which he can rely on this valuable remedy as a heart regulator and support. And the more he uses it the more he will see that Cactina is not a spur or a goad—but a thoroughly dependable tonic and prop.

A DEPENDABLE BROMIDE PREPARATION:—"Why is it," asks a physician of high standing, "that I get results from the use of Peacock's Bromides that I never can from ordinary extemporaneous preparations of potassium or sodium bromide? As a matter of fact, I find that I can produce sleep and accomplish sedation with surprisingly small doses of Peacock's Bromides and never encounter any ill effect. What makes this product so effective?"

The explanation is a very simple one.

The bromides in Peacock's Bromides are made especially for the product, and salts of their high purity are not found in the open market. The imitations of this preparation, therefore, do not imitate, except in physical properties, for ordinary preparations have to be made from inferior salts. A trial consequently never fails to demonstrate a difference between its action and that of substitute or extemporaneous preparations. Thus, an eminent neurologist writes: "I am convinced that Peacock's Bromides is the purest preparation to be had, and moreover, that it gives most satisfactory results and is attended with fewer symptoms of bromism than any other with which I am familiar. I have used it extensively in neuroses during my connection with the State Asylum for the Insane, as well as in my private practice, and in the Clinic of the University, and am, perhaps, fairly well qualified to pass judgment."

ATONIC INDIGESTION:—Seng, a potent and effective preparation of Panax (Ginseng), has long been used with conspicuous success in all forms of functional diseases of the gastro-intestinal tract. It may be used alone or in any of the many combinations that the experience of the trained therapist will suggest. It has frequently been observed, however, that the administration of Seng after everything else has failed, marks the beginning of a substantial relief from the train of symptoms that result from atonicity of the gastro-intestinal glands.

In these conditions Seng imparts a desirable tonicity to the alimentary structures, coaxing back the vital functions that have been exhausted and depressed. Fermentation is decreased, pain and distress are relieved, and the patient's whole condition shows marked improvement.

Seng is not a digestant, nor is it a remedy to substitute for a weak, non-acting organ. On the contrary, it is an activator and stimulator of dormant or enfeebled functions, helping and forcing the stomach and intestines to do their own work rather than doing it for them. In brief, Seng is a true secernent and used with discrimination and thoroughness it will accomplish results that cannot fail to gratify the painstaking zealous practitioner.

THE APPLICATION OF CHEMISTRY TO CLINICAL MEDICINE:—It has long been thought that the therapeutic value of Cod Liver Oil did not rest upon its abundance of fatty substance, for while the advantage to be secured from the employment of fats in emaciation and general debility was truly appreciated, yet it was believed that it was to other elements that Cod Liver Oil owed its acknowledged worth.

With an increasing chemical knowledge of Cod Liver Oil, it became an obvious fact that the essential principles of the oil could be separated from the whole product without the loss of therapeutic power in the process, or, in other words, that these isolated principles when applied clinically would produce the effects hitherto secured from the entire oil. It was this practical fact together with the realization that in a vast number of cases any potential value possessed by the oil was more than neutralized by the distress occasioned when a defective gastric apparatus attempted to digest the entire greasy mass, that encouraged chemists to apply themselves to the task of extracting the essential principles and thus relieve the stomach of the burden. In short, chemical science has enabled the patient to secure every therapeutic virtue possessed by Cod Liver Oil without being forced to digest a large amount of fats. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) has long been recognized as the highest type of Cod Liver Oil preparations, for results show that although it lacks the fat which makes the crude oil so unpalatable, yet it still retains those principles upon which the therapeutic value of Cod Liver Oil depends.

SAFEGUARDING PATIENTS AGAINST THE CATHARTIC HABIT:—It is a growing opinion among medical men that powerful cathartic preparations are often used too freely and for too long periods by patients

afflicted with constipation. Many purgatives by their drastic action usually diminish biliary secretion, and thus tend to increase rather than correct habitual constipation. The evil effects from their indiscriminate use are usually due to the thoughtlessness of patients who are not content unless they obtain vigorous action. This "cathartic habit," while producing the effect which the patient thinks is desirable, often leaves the secretory functions of the liver in an enfeebled and exhausted condition, so that a reactionary constipation is bound to follow. In treating chronic constipation the physician will find Chionia a most valuable adjunct combining it with the chosen cathartic and gradually diminishing the dose of the cathartic employed as improvement follows. The administration of Chionia should be continued some time after the cathartic or purgative has been discontinued. Under such treatment the hepatic organ will gradually resume its normal functions and a restoration of a healthy condition, particularly of the bowels, will be the result.

THE AFTER CARE OF CHILDREN'S ILLS:—With the advent of school days, and the daily association of many children in the class room, the contagious diseases of childhood develop and multiply. The exanthemata, as well as diphtheria, whooping cough, etc., comprise a considerable proportion of the diseases that the family physician is called to treat during the late fall and winter months. The robust child, with but a mild affection, frequently recovers quickly and, perhaps, requires but little attention during the convalescent period, while the child whose general nutrition is "below par" usually emerges from the acute attack with a condition of Anemia and general vital depreciation. In the large majority of cases, it is undoubtedly wise to encourage and hasten convalescence by means of a palatable and efficient hematinic and general tonic. For this purpose Pepto-Mangan (Gude) is especially valuable. All children like it and take it readily; it does not irritate the digestive organs, but, to the contrary, increases the appetite and assists in the absorption and assimilation of the child's nourishment. As it is non-astringent, it does not, as other ferruginous remedies do, cause or increase constipation. As Pepto-Mangan is prompt and efficient as a blood builder and general reconstructive, it should be preferred among children whenever medication of a general tonic is indicated.

SAPIENT SUGGESTIONS:—We are a peculiar bunch, after all—we men and women of today. A lot of good people, but a lot of whose thoughts and true natures are unfit for publication.

A great many people work their tongues overtime while their brains are idle. Much of the talk one listens to nowadays is an exercise of the tongue, rather than the brain.

Many people labor very hard hunting for joy. They won't find it until they stop talking for it and go to work at something and do that work the very best they can. Work poorly done brings more unhappiness and discontent than work left undone.

Let us get into humanity's procession, and do good things, instead of "doing good people."

It requires a lot of nerve to stand still and stop talking when the crowd is rushing thoughtlessly pell-mell this way or that. The man who stands still is the wise man, and the progressive one, for that matter, if the crowd is going backward. The wise man, moreover, will keep his mouth shut. *The fool can't do it.* (These five paragraphs of practical, pointed and pungent "suggestions," to which we have supplied a heading, with all due deference to Dr. Butler, the spicy and splendid writer, who has recently mounted its editorial tripot, we find as the concluding editorial of *The Dietetic and Hygienic Gazette* of September, 1912.—*Ed. S. P.*)

A THERAPEUTIC REQUISITE FOR NEUROTIC PATIENTS:—There is never greater need for careful discrimination in the choice of remedial agents than in the case of neurotic subjects. As a result of perverted nervous function the moral fibre of such patients has become weakened, in view of which the physician hesitates to order drugs whose use otherwise would be warranted.

It is in just such instances that Pasadyne is of the greatest usefulness. Pasadyne, as is now generally known, is a standard preparation of the Concentrated Tincture of *Passiflora Incarnata*, and possesses marked soothing and hypnotic properties. A further distinct advantage of Pasadyne lies in its freedom from the dangers attending the use of drugs producing similar effects. The physician giving it, although he may look for the same results following the use of chloral or the bromides, need not fear any disagreeable after-effects.

A sample bottle may be had by addressing the laboratory of John B. Daniel, Atlanta, Ga.

CHOREA:—The prompt effect of Gray's Glycerine Tonic Comp. in chorea and kindred nervous affections is attributable to its well known capacity of imparting new tone to weakened and depressed nervous systems. Its use in combination with arsenic in form of Fowler's

Solution is attended by such uniformly gratifying results that it cannot fail to appeal to every earnest physician.

The following formula is most effective, employed, of course, in conjunction with as nearly complete rest as possible and careful regulation of the hygiene and diet.

R Liq. Potass. Arsenitis, dr. ii
 Glycerine Tonic Comp. (Gray's), qs. ad oz. viii
 M. et Sig:—One to two teaspoonfuls—according to age of
 child—three times a day.

Under this treatment the nervous symptoms are promptly controlled and a child's condition rapidly restored to the normal.

A SYSTEMIC ANTISEPTIC:—Although Cystogen ($C_6H_{12}N_4$), is excreted largely through the urine, it has been found in the blood, in the gall-bladder, in the cerebrospinal fluid, in the middle ear and in the secretions of the nasal mucous membranes and the accessory sinuses. It is excreted into the sputum of patients suffering from bronchitis and pneumonia.

The value of Cystogen as a urinary antiseptic has long been recognized but only during the past year or so has it been used in bronchitis and other infections of the respiratory tract. Its action in these conditions, particularly if given in doses, is most gratifying. Common colds are aborted if Cystogen is prescribed early, and given at any stage of the infection the pain and congestion are relieved, the excessive secretion is reduced, and the possibility of complications is lessened.

ARTICLES WANTED ON TREATMENT OF FRACTURES OF THE LONG BONES:—The American Surgical Association has appointed a committee to report on the operative and non-operative treatment of closed and open fractures of the long bones and the value of radiography in the study of these injuries. Surgeons who have published papers relating to this subject within the last ten years will confer a favor by sending me two reprints. If no reprints are available, the titles and places of their publication are desired.

JOHN B. ROBERTS,

Chairman of Committee, 313 South Seventeenth Street, Philadelphia.

The other members of the committee are Drs. William L. Estes, South Bethlehem, Pa.; Thomas W. Huntingdon, San Francisco, Calif.; John B. Walker, New York City, and Edward Martin, Philadelphia.

WHEELER'S TISSUE PHOSPHATES have been before the medical profession fifty-five years. It is a chemical food. If you have never tried it, you have missed a mighty good thing.

Selections

RUPTURE OF THE BLADDER:—Dr. P. R. Turnure presented to the New York Surgical Society, May 8, a man who was admitted to the service of Dr. W. F. Murray at the House of Relief on January 29, 1912. The history obtained was that on the day of his administration he had drunk a considerable amount of beer, and at 7 p. m. he found that he was unable to pass water, although five hours prior to that he had passed his urine normally. His desire to urinate increased, and as he began to suffer from abdominal pain, he was brought to the hospital in an ambulance at 8:15 p. m.

Upon admission, he appeared to be slightly intoxicated and suffering much pain. He denied having sustained any injury whatever, and was certain that he could remember everything that happened to him. Physical examination showed a moderately rigid abdomen, with marked tenderness over the bladder region, and slight tenderness over the right kidney. No free fluid could be made out. He was at once catheterized, and eight ounces of bloody urine withdrawn. He felt immediate relief and was comfortable until 11 o'clock that night, when he had a desire to urinate. He was again catheterized, and forty-eight ounces of blood-tinged urine withdrawn, the amount of blood being much less than that contained in the first specimen.

On the following day the patient felt much more comfortable, although his inability to urinate persisted, and he had to have his water drawn three times, about fifty ounces being obtained during the day. The quantity of blood in the urine was steadily decreasing, and the temperature, pulse, and respirations were normal. There were slight signs of an inflammatory process in the region of the right kidney, and arrangements were made to have him cystoscoped the next day. The bladder was also tested by injecting ten ounces of saline solution, all of which was withdrawn. The blood count was normal.

The following day the patient was catheterized twice in the morning, twelve ounces of slightly blood-tinged urine being withdrawn. At 2 o'clock in the afternoon he began to complain of general abdominal pain; his temperature rose to 101 degrees, and a blood count showed 25,720 white cells, 7,150,000 red cells, 78 per cent. of hæmoglobin, and 90 per cent. of polymorphonuclears. He rapidly developed signs of commencing peritonitis and an immediate operation was decided upon. This was done at 5 o'clock that afternoon, and a rent in the fundus of the bladder, running in an anteroposterior direction and opening into the peritoneum, was found. It was at least three inches long, and was closed in the usual way, a cigarette drain being inserted into the pelvis and a catheter passed into the bladder through the urethra and left there. As the patient was rather weak, the abdominal wound was closed by through-and-through sutures, and an infusion was given. He was then put in bed in the Fowler position and given the Murphy drip. His recovery was uneventful, and he left the hospital on February 20.

Dr. Turnure said that three points were of interest in this case: first, the misleading history; second, the fact that all the fluid injected into the bladder returned and that the patient was much relieved by catheterization, and the rapidly diminishing amount of blood found in the urine; third, the tolerance of the peritoneum to urine.

Dr. George Woolsey said he had seen two similar cases where there was no apparent cause for the rupture of the bladder. In one of the cases the patient was drunk, and under those circumstances one could not absolutely say that there was no traumatism. Of course it was known that alcohol had an effect on the bladder which rendered it more susceptible to rupture. In his second case, Dr. Woolsey said where there was a history of alcoholism but no drunkenness, there was an extraperitoneal rupture of the bladder without trauma, the diagnosis being made with the aid of the cystoscope.—*Annals of Surgery*.

WHAT ARE THE USEFUL DRUGS?—In a single sentence, Osborne, of Yale, writing in the *Journal of the American Medical Association*, eliminates three-fourths of the Pharmacopeia and then proceeds to wipe out most of the remainder. The list of really necessary drugs, as he finally presents it, is a painfully small one. Of those that are admitted to be useful, he thinks that we can do without a goodly portion. We need no copper salts, no zinc salts, only one or two iron salts; one bitter tonic is enough—and perhaps that is superfluous; pepsin and diastase are not needed; there are no good emmenagogues except iron and thyroid; alcohol is remedy enough for the relief of menstrual pain; sodium bromide meets all the requirements for bromine, and sodium iodide supplies the iodine; chloral is all the hypnotic needed; to render the urine alkaline potassium citrate serves every purpose—and so on through the list.

"I am not a drug nihilist," says Dr. Osborne. "I believe thoroughly in the activity of drugs, but I deplore the profession being fooled by promoters of so-called new drugs and synthetics." However, there are those who dissent from the doctor's view of what constitutes a "drug nihilist." In the discussion that followed the reading of this paper Dr. Solomon Solis-Sohen very pertinently said:

"Potassium citrate may be the only diuretic salt needed at Yale; but some of us have formed the habit of using potassium acetate occasionally. Why should the American Medical Association say, even to Philadelphia barbarians, 'You must not use "tweedledum;" you must assept the dictate of Olympus and employ "tweedledee"?"

"This question is not so simple as one may deem in looking at it from the purely personal point of view. I have no objection to Yale's restricting itself to twenty drugs, or to Oxford's restricting itself to four, or to Harvard's restricting itself to none; but if the patient happens to be under my care and my judgment tells me that I shall use a rem-

edy which is outside of the twenty or the four that are sacrosanct, or even the nine hundred and forty that are officialized, what is my duty under the circumstances? To bow to some prohibitive restriction imposed in ignorance of the existence of that patient and of the conditions that he presents, perhaps in ignorance of the existence or of the influence of the remedy I propose to use? Maybe so—but I do not see it in that light. My patient is entitled to my knowledge unhampered by orthodox, or even official, ignorance.

“For example, I have had an interesting discussion lately with regard to aspidospermine. This potent drug does not find place in the Pharmacopeia of today; it probably will not find place in the Pharmacopeia of next year or the year after. Aspidospermine, therefore, omitted from the Pharmacopeia to please restrictionists who know nothing whatever about it from personal observation, must not be prescribed by me on account of such omission, although I should not know how to treat certain cases of asthma without it. I know how asthma is treated without it, of course, but I should not know how I could give my patients the benefit of the knowledge and skill they are entitled to.

“There is no objection to any physician restricting himself to the tools that he knows how to use; but there is every objection to his attempting to restrict some other physician who has other, and perhaps better, tools and methods. The Pharmacopeia should admit every drug that is known to be of advantage in the treatment of the sick, no matter how seldom it is prescribed and no matter how many other drugs there may be which have similar influence. On the other hand, it is true that we can simplify the teaching of materia and improve the practice of therapeutics by confining our work in the schools to a certain number of typical drugs, provided, however, that these drugs are to be taught as types and not as exclusives.”

In the forceful language of the Bull Moose: “Bully for Dr. Solis-Cohen.” There could be no position more deadly

in its effect upon therapeutics than one that assumed perfection in the medicinal agents already at our disposal and which discouraged physicians from reaching out after newer and better ones. Progress is achieved through the incessant trial of new things, as well as through constant endeavor to make the most of those we have. Yet while in all else the physician realizes this and encourages innovation and investigation, in practical therapy the Chauvinists still hold the respectful attention of those who should be encouraging the chemist-investigator in his stead.—*Medical Standard*.

SODIUM BICARBONATE FOR BURNS:—Dr. Curt von Wedel (*U. S. Medical Journal*, July, 1912), paints a vivid picture of the typical case of severe burns coming to the hospital. The patient shows a good pulse, being stimulated by the pain, he gradually becomes stupid, pulse grows rapid, then acid vomiting, diarrhea and suppression of urine appear. The latter shows hyperacidity and contains diacetic acid. The stupor is soon followed by coma ending in death; all this within twenty-four to forty-eight hours, and too early for the development of sepsis and too late for shock, to explain these rapid developments.

Dr. von Wedel finds an explanation in acidosis, tests showing that the vomitus, stools, urine, and other excretions are charged with diacetic acid and various other organic acids.

It is a well-known fact that the surface reaction of all burns is acid—that is why our grandmothers applied baking soda: the saleratus alleviated the pain by neutralizing the acids forming.

Burns immediately after the occurrence are all sterile or nearly so, becoming infected only as a secondary condition. Therefore, the indicated treatment is to prevent infection, to prevent absorption, and to alleviate pain.

Bicarbonate of sodium is a mild antiseptic and an as-

tringent and, because of its alkaline properties, is an anesthetic to burns. Consequently this substance answers all the indicated requirements, and is thus equally as efficient as the much-used boric acid, mercury bichloride, and other antiseptics. The paramount indication for its use, however, is that it renders alkaline the burned area, thus alleviating pain and preventing the absorption, by its neutralizing action, of this intensely acid toxin, the absorption of which often ends so disastrously to our patients.

Sodium bicarbonate should be applied in a rather thin paste and be renewed twice daily by saturating gauze with it, being very careful to employ a strictly sterile solution. The gauze should be covered with gutta-percha tissue, both to seal the burn and to keep the patient's bed dry. Then the patient should receive, per enema, six ounces of a hot 6 per cent. solution of sodium bicarbonate, repeating every three hours for as long as he can retain the same.

If the burn should not be so severe, large quantities of sodium bicarbonate should be given by mouth. If it be severe, however, a hypodermoclysis or an intravenous infusion of one quart of isotonic sodium-bicarbonate solution should be given. This infusion not alone acts as a stimulus to the patient, but directly neutralizes any acid toxin that may have been absorbed, thus immediately preventing the congestion of the serous and mucous surfaces. It also acts as a diaphoretic and diuretic.

By its diaphoretic action, produced by increased blood pressure, the soda infusion eliminates an alkaline serum about the burned area, thus greatly diminishing pain. By its diuretic action, we eliminate one of the greatest dangers in our customary treatment of burns; namely, the use of very large doses of morphine, whose only action is greatly to prevent elimination and to add to the dangers of suppression. Again, by this diuretic action, produced both by its neutralization of the toxin in the kidney and by its increase of blood pressure, it relieves the body of the

overwhelming toxemia and prevents that most dreaded complication, the suppression of elimination.

Sodium bicarbonate also tends greatly to relieve the congested lungs, bronchi, intestinal mucous membrane, and meninges, by rendering alkaline the secretions. By its rendering alkaline the secretion of the meninges, we prevent irritation of this delicate membrane, which, when irritated, causes an exudate of serum, added brain pressure, and coma.—*American Journal of Clinical Medicine*.

THE CAUSE OF SLEEP:—The July number of the *St. Louis Medical Review* has this excellent editorial summary of this always interesting subject.

Durham performed some experiments in 1860 that proved the cerebral circulation is diminished during natural sleep. He trephined a dog and inserted in the trephine opening a watch crystal, sealing the edges hermetically to exclude the complication of external air pressure. When the animals operated on were awake, the pial vessels were seen moderately distended with blood, and the circulation was active; but during natural sleep, the brain retracted and became pale, so that the contrast was most remarkable.

Now Flint and some other physiologists assert that the cerebral circulation is under vaso-motor control, while Osler and other writers declare it is not. If it is not how is sleep brought about?

The most tangible explanation of the phenomenon of natural sleep is offered by Sajous. Sleep, says Sajous, is brought about by the sympathetic centre in the posterior pituitary body sending constrictor impulses to the anterior pituitary which governs the function of the thyro-adrenal system; the effect is a diminution of the internal secretion of these glands, and thus a lowered metabolic activity, which permits general vaso-dilation. The blood accumulates in the splanchnic and the large trunks, cerebral anaemia being one result.

Fleming found by experiments on himself that pressure on the carotid arteries produced prompt sleep. A well recognized cause of obstinate insomnia is high blood pressure.

Fatigue and sleep both have a physical basis. Injection of the blood from a fatigued animal into a normal animal at once produces all the signs of fatigue in the latter. Exercise produces fatigue-products in the blood, as does functional activity of all the organs, and these fatigue-products affect the nerve cells of the pituitary gland. When sleep follows fatigue it is certain, says Flint, that the supply of blood to the brain is considerably diminished; and the only explanation for this is that in some way fatigue-products in the blood affect the vaso-motor system. The necessity for sleep is represented by certain degenerative structural changes that have taken place in the nerve cells of the brain.

Thus it appears that all authorities are agreed that sleep is a matter of vaso-motor control, and every theoretical and clinical observation corroborates that view.

Sleep is preceded by general muscular relaxation normally, though soldiers have been known to sleep while on long forced marches. Warmth to the feet or warmth applied to the whole body is well known to invite sleep; it does so through vasomotor relaxation. Prolonged exposure to severe cold may induce an irresistible desire to sleep—a sure forerunner of death by freezing; this sleepiness is explained by the failure of vaso-motor reaction, the blood accumulating in the splanchnic area.

Every drug we use to produce a hypnotic effect causes a derivation of cerebral blood to some other part of the body. Splanchnic accumulation of blood also explains the drowsy effect of a hearty meal.—*Alienist and Neurologist*.

TREATMENT OF CHOLELITHIASIS:—Mayer, in *The London Lancet*, says that (1) acute cholecystitis should be treated medically; only the most severe form, cholecystitis

acutissima, belongs to the surgeon; (2) chronic relapsing cholecystitis should be treated by operation only when all the suitably employed agencies of medical therapy have failed; (3) operation should be performed in chronic obstruction of the ductus choledochus if two or three months of medical treatment are without effect. In cases with prolonged remittent fever, rigors, and bad general condition the operation is unquestionably indicated; (4) hydrops vesicæ felleæ demands operation only if there are persistent and very severe irritative phenomena; (5) empyema of the gall bladder and all suppurating processes in the region of the gall bladder and in the liver should be operated upon; (6) adhesions about the gall bladder should be treated medically as long as the inconvenience produced is not marked. In the most severe cases operation is required; (7) acute and chronic pancreatitis, resulting from cholelithiasis, belong to the surgeon. He recommended for the treatment of cholelithiasis salicylic acid only. Salicylate of soda with extract of belladonna are often found valuable in practice. The chief influence of salicylic acid is upon the inflammatory symptoms. He has seen the best results with salicylic acid in acute and chronic cholecystitis, especially with simultaneous rest in bed and the application of hot compresses. In such cases he gives from two to four times a day a powder of sodium salicylate 0.5 gram, and extract belladonna, 0.01-0.02 gram, dissolved in warm water. The doctor has used calomel for years according to the recommendation of Sacharjin in severe cases of biliary colic, accompanied by constant pain and high fever. The writer gives 0.06 gram every hour for the first three to five doses, according to the nature of the case, and afterwards every two hours until the first typical calomel stool appears. Striking results are frequently obtained by this treatment, since the pains often cease at once, the fever gradually diminishes, and the whole severe symptom complex completely disappears in a few days. The bile can be made more liquid by giving the patient an abundance of fluid. Excess in eating

must be avoided. All food difficult of digestion must be strictly forbidden. Food should be taken minced or in the form of puree. The patient should be kept in bed for several days after each attack of biliary colic, and in severe cases as long as there are inflammatory manifestations and as long as tenderness on pressure over the gall-bladder remains. In the absence of these symptoms physical exercises are not only indicated, but constitute one of the most important factors in treatment. Deep breathing exercises are valuable.—*Charlotte Medical Journal*.

IPECAC IN INTESTINAL AMEBIASIS—Dudley Roberts, in Merck's Archives, describes six cases of dysentery, in which amebae were found upon the intestinal walls, and in which the ipecac treatment was used. This is the class of cases in which English physicians have used this method of treatment with good success. The novelty is not in the drug, but in the administration, which is as follows:

After preliminary cathartics, the patient takes forty grains of powdered ipecac in pills carefully prepared with successive coatings of salol and keratin. When the pills were properly coated, no nausea or emesis resulted, although the fact that they dissolved in the intestine was proved by the appearance of methylene blue in the urine, which drug was included in the make-up of the pill. The stock pills were found to be useless. The ipecac in the forty-grain dose was given, usually daily, for five days. Preceding the ipecac by one-half hour, fifteen drops of tincture of opium, or a corresponding amount of powdered opium, were given. The opium was not always necessary to prevent nausea or emesis when properly coated pills had been used, but was exhibited rather to check the active catharsis brought about by the doses of ipecac. Ice compresses at the throat were found to be of comparatively little value. After five days of large doses, the ipecac was reduced ten grains each day and the treatment completed in eight days.

Although many treatments have been suggested for amebic dysentery, it is Roberts' opinion, from the study of the literature and his personal observation, that ipecac is the one remedy that can lay claim to being specific. That it is specific has been questioned by many competent observers, but their criticisms are to a large extent answerable. Until large doses were made possible by careful preparation of the pills, it was not possible to secure results except in those patients who could tolerate powerful emetics.—*Medical Standard*.

SPUTUM DIAGNOSIS OF PNEUMONIA:—We all welcome simple laboratory tests of real clinical usefulness. It appears that Dr. August J. P. Pacini, of Memphis, Tenn., in *Interstate Medical Journal*, June, 1912, has supplied one. Get ready to use it next winter. Here is all essential data, as reported from the laboratory at University of Tennessee College of Medicine.

The reaction to be described was observed persistently present in pneumonic sputa during some research investigations concerning the nature, source and characters of sputum pigments relative to their diagnostic value.

After noting the usual physical characters of the specimen for examination, including, of course, the color, odor, consistence, etc., a portion of the sputum is mixed with distilled water in the proportion of one volume of sputum to ten volumes of water and agitated in a suitable container for five minutes. The mixture is filtered through paper and preserved for the test.

A one per cent. aqueous solution of methyl violet constitutes the reagent necessary for this reaction, and should be prepared as stock and ready for use.

To a test-tube containing 10 c. cm. of distilled water add 5 drops of methyl-violet solution and mix thoroughly. Then add, drop by drop, 10 drops of the filtrate obtained as above described.

In the event of a positive reaction, the methyl violet assumes a distinct red color. Nothing short of a red color constitutes a reaction.

This reaction is present only in the sputum of those patients subject to the onset of pneumonia. It is due to a specific disintegrated blood pigment characteristically present in the sputa of such patients, and precedes the expectoration of the classic "rusty sputum" by several days.

Applied to over 1,200 specimens, where the ultimate diagnosis was confirmed and established as pneumonia, an error of 2 per cent. existed.

Because of the combined accuracy and simplicity involved in the diagnostic method, it should prove useful to the practitioner who does not even attempt laboratory diagnosis because of time and training necessary for such work.
—*Medical Council.*

ANESTHESIA AS A SPECIALTY:—The organization of a National Society of Anesthetists on the occasion of the last meeting of the American Medical Association marks an important advance in the evolution of anesthesia into a distinct specialty. Next to the surgeon himself the anesthetist occupies the most responsible position in the performance of a surgical operation. It is surprising that the administration of anesthetics is still so largely entrusted to those of limited knowledge and experience. England has set us an example that we have been slow to follow. For many years interest in this field has been promoted there by societies of anesthetists, and most of the larger hospitals have professional anesthetists on their staffs with well-defined duties and responsibilities. The services of such experts prove invaluable in the training of internes for this work. The multiplication of professional anesthetists should also exert a beneficial influence upon the surgery done outside of hospitals; in many of our large cities they are already in constant demand and the importance of this specialty is fully

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In most cases of coryza, cystogen in full doses (gr. X-XV, 4 times daily for an adult) acts promptly and effectively if treatment is given at the inception of the attack. The irritation is relieved, the watery secretion is checked, and the "stiffness" and headache disappear.

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is suggested as specially convenient since a laxative is usually indicated and seldom inadvisable in these cases.

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recognized. Much more attention should be given in our medical colleges and post-graduate institutions to imparting a thorough knowledge of anesthesia, so that the general practitioner will be better equipped to undertake this work, if he has not had the benefit of a hospital training, and this is particularly desirable in the large field of emergency surgery. There is a legitimate demand for a specialty in anesthesia as a means of not only simplifying the duties of the surgeon but adding to their efficiency.—*International Journal of Surgery*, August, 1912.

TREATMENT OF WHOOPING-COUGH:—The drugs that gave the most satisfactory results were antipyrin and the bromides. Antipyrin gave the best results of any drug used alone; the bromides took second place. They were then combined and it was found that together they more effectually controlled the disease. The combination was given in over 600 cases. The paroxysms were either reduced in number from one-third to one-half, without any lessening of the severity of the seizure, or the seizures were less severe without any diminution in their number. In some cases both the number and severity of the paroxysms were favorably influenced. The combination given in the proper vehicle is readily taken and easily borne by the stomach; it is not depressing even in good-sized doses. For a child eight months of age, one-half grain antipyrin with two grains of bromide of soda are given at two-hour intervals—six doses in twenty-four hours; for a child of fifteen months, one grain antipyrin and two and a half grains of bromide; from the fourth to the eighth year, two grains of antipyrin and five grains of bromide.

Codein has a most valuable place when the child cannot sleep on account of repeated coughing attacks and vomiting. Then it should be given independently of all other treatment.—*J. B. Bilderbank, in North West Medicine*.

IN STARTING THE ANESTHETIC it is not unusual to see the doctor drop the mask flat on the face, commence pouring from the bottle, at the same time telling the patient to "breathe deeply." This procedure is sufficient to upset any patient. By telling the patient to breathe naturally and holding the mask two or three inches from the face at the start, the disagreeable smothering sensation—coughing and gagging—will be done away with and narcosis hastened. The danger resulting from the cumulative action of the drug, which comes from supplanting residual air in the lungs with the anesthetic, when telling the patient to breathe deeply, will be minimized.—*N. Y. Med. Times.*

IRRIGATION OF QUININE FOR ACUTE GONORRHEA:—According to A. E. Mowry, M. D. (Old Dominion, September, 1912), of Chicago, bisulphate of quinine, 1 to 3,000 to 1 to 1,500 solutions as an irrigation daily will cure at least fifty per cent. of acute gonorrheal urethritis in two weeks. It is less irritating than permanganate of potash solutions, is anesthetic, tonic and withal strongly antiseptic. In preparing this solution, it is best to dissolve the quinine in a glass of very hot water and then add this to the irrigating syringe filled with warm water. If for any reason there is still a residue, the solution should be filtered.—*Medical Fortnightly.*

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